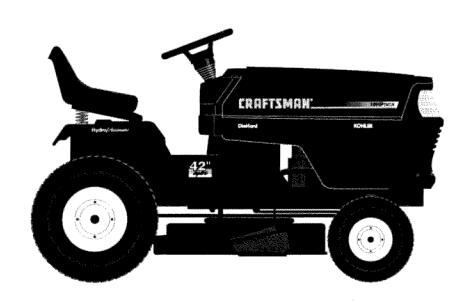
SEARS

# 

MODEL NUMBER 917.252710 OWNER'S MANUAL

- Assembly
- Operation
- Customer Responsibilities
- Service and Adjustments
- Repair Parts





CAUTION: Read and follow all safety rules and instructions before operating this equipment.



### SAFETY RULES

#### **Safe Operation Practices for Ride-On Mowers**



**IMPORTANT:** THIS CUTTING MACHINE IS CAPABLE OF AMPUTATING HANDS AND FEET AND THROWING OBJECTS. FAILURE TO OBSERVE THE FOLLOWING SAFETY INSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH.

#### I. GENERAL OPERATION

- Read, understand, and follow all instructions in the manual and on the machine before starting.
- Only allow responsible adults, who are familiar with the instructions, to operate the machine.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blade.
- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
- Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Be aware of the mower discharge direction and do not point it at anyone. Do not operate the mower without either the entire grass catcher or the guard in place.
- Slow down before turning.
- Never leave a running machine unattended. Always turn off blades, set parking brake, stop engine, and remove keys before dismounting.
- · Turn off blades when not mowing.
- Stop engine before removing grass catcher or unclogging chute.
- Mow only in daylight or good artificial light.
- Do not operate the machine while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Use extra care when loading or unloading the machine into a trailer or truck.

#### **II. SLOPE OPERATION**

Slopes are a major factor related to loss-of-control and tipover accidents, which can result in severe injury or death. All slopes require extra caution. If you cannot back up the slope or if you feel uneasy on it, do not mow it.

#### DO:

- Mow up and down slopes, not across.
- Remove obstacles such as rocks, tree limbs, etc.
- Watch for holes, ruts, or bumps. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- Use slow speed. Choose a low gear so that you will not have to stop or shift while on the slope.
- Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability.
- Use extra care with grass catchers or other attachments.
   These can change the stability of the machine.
- Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction.
- Avoid starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly straight down the slope.

#### DO NOT:

- Do not turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.
- Do not mow near drop-offs, ditches, or embankments. The mower could suddenly turn over if a wheel is over the edge of a cliff or ditch, or if an edge caves in.
- Do not mow on wet grass. Reduced traction could cause sliding.
- Do not try to stabilize the machine by putting your foot on the ground.
- · Do not use grass catcher on steep slopes.

#### III. CHILDREN

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. *Never* assume that children will remain where you last saw them.

- Keep children out of the mowing area and under the watchful care of another responsible adult.
- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and down for small children.
- Never carry children. They may fall off and be seriously injured or interfere with safe machine operation.
- Never allow children to operate the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

#### IV. SERVICE

- Use extra care in handling gasoline and other fuels. They are flammable and vapors are explosive.
  - Use only an approved container.
  - Never remove gas cap or add fuel with the engine running. Allow engine to cool before refueling. Do not smoke.
  - Never refuel the machine indoors.
  - Never store the machine or fuel container inside where there is an open flame, such as a water heater.
- Never run a machine inside a closed area.
- Keep nuts and bolts, especially blade attachment bolts, tight and keep equipment in good condition.
- Never tamper with safety devices. Check their proper operation regularly.
- Keep machine free of grass, leaves, or other debris build-up.
   Clean oil or fuel spillage. Allow machine to cool before storing.
- Stop and inspect the equipment if you strike an object. Repair, if necessary, before restarting.
- Never make adjustments or repairs with the engine running.
- Grass catcher components are subject to wear, damage, and deterioration, which could expose moving parts or allow objects to be thrown. Frequently check components and replace with manufacturer's recommended parts, when necessary
- Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves, and use extra caution when servicing them.
- Check brake operation frequently. Adjust and service as required.



Look for this symbol to point out important safety precautions. It means CAUTION!!! BECOME ALERT!!! YOUR SAFETY IS INVOLVED.



CAUTION: Always disconnect spark plug wire and place wire where it cannot contact spark plug in order to prevent accidental starting when setting up, transporting, adjusting or making repairs.

**CONGRATULATIONS** on your purchase of a Sears tractor. It has been designed, engineered and manufactured to give you the best possible dependability and performance.

Should you experience any problem you cannot easily remedy, please contact your nearest Sears Service Center/Department. We have competent, well-trained technicians and the proper tools to service or repair this tractor.

Please read and retain this manual. The instructions will enable you to assemble and maintain your tractor properly. Always observe the "SAFETY RULES".

MODEL NUMBER	917.252710
SERIAL NUMBER	
DATEOFPU	RCHASE
	AND SERIAL NUMBERS WILL BE FOUND E UNDER THE SEAT.
YOUSHOUL	D RECORD BOTH SERIAL NUMBER AND

#### MAINTENANCE AGREEMENT

FOR FUTURE REFERENCE.

A Sears maintenance agreement is available on this product. Contact your nearest Sears store for details.

DATE OF PURCHASE AND KEEP IN A SAFE PLACE

#### **CUSTOMER RESPONSIBILITIES**

- · Read and observe the safety rules.
- Follow a regular schedule in maintaining, caring for and using your tractor.
- Follow the instructions under "Customer Responsibilities" and "Storage" sections of this owner's manual.

#### PRODUCT SPECIFICATIONS

HORSEPOWER:	18.0
GASOLINE CAPACITY AND TYPE:	3.5 GALLONS UNLEADED REGULAR
OIL TYPE (API-SF/SG):	SAE 10W-30 (above 32°F) SAE 5W-30 (below 32°F)
OIL CAPACITY:	W/ FILTER: 4.5 PINTS W/O FILTER: 4.0 PINTS
SPARK PLUG: (GAP: .030")	CHAMPION RV17YC
VALVE CLEARANCE:	INTAKE: .003"006" EXHAUST: .013"016"
GROUND SPEED (MPH):	FORWARD: 5.62 REVERSE: 2.4
TIRE PRESSURE:	FRONT: 14 PSI REAR: 10 PSI
CHARGING SYSTEM:	15 AMPS @3600RPM
BLADE BOLT TORQUE:	30-35 FT. LBS.

**WARNING:** This tractor is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the state of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest Sears Authorized Service Center (See REPAIR PARTS section of this manual).

#### LIMITED TWO YEAR WARRANTY ON ELECTRIC START RIDING EQUIPMENT

For two (2) years from the date of purchase, if this riding equipment is maintained, lubricated and tuned up according to the instructions in the owner's manual, Sears will repair or replace, free of charge, any parts found to be defective in material or workmanship.

This Warranty does not cover:

- · Expendable items which become worn during normal use, such as blades, spark plugs, air cleaners and belts.
- · Tire replacement or repair caused by punctures from outside objects, such as nails, thorns, stumps, or glass.
- Repairs necessary because of operator abuse, negligence, improper storage or accident or the failure to maintain the
  equipment according to the instructions contained in the owner's manual.
- · Riding equipment used for commercial or rental purposes.

#### **LIMITED 90 DAY WARRANTY ON BATTERY**

For ninety (90) days from date of purchase, if any battery included with this riding equipment proves defective in material or workmanship and our testing determines the battery will not hold a charge, Sears will replace the battery at no charge.

WARRANTY SERVICE IS AVAILABLE BY RETURNING THE RIDING EQUIPMENT TO THE NEAREST SEARS SERVICE CENTER/DEPARTMENT IN THE UNITED STATES.

This Warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

SEARS, ROEBUCK AND CO., D/817 WA, HOFFMAN ESTATES, ILLINOIS 60179

# **TABLE OF CONTENTS**

SAFETY RULES	2	MAINTENANCE	SCHEDULE	16
PRODUCT SPECIFICATIONS	3	SERVICE AND	ADJUSTMENTS	20-26
<b>CUSTOMER RESPONSIBILITIES</b>	3. 16-19	STORAGE		27
WARRANTY	3	TROUBLESHOO	TING	28-29
TRACTOR ACCESSORIES	5	REPAIR PARTS	- TRACTOR	32-47
ASSEMBLY	7-10		- ENGINE	
OPERATION			NG/SERVICE E	
		· Airio onderi	in the second se	DAOR COVER
INDEX				
A	E		0	
Accessories 5	Electrical:		Oil:	
Adjustments:		ays 25	Cold Weather Conditi	ions 12,18
Brake22		31	Engine	18
Carburetor		32	Storage	
Mower	Engine:	4.0	Operation	
Front-To-Back		19	Operating Mower	13
Side-To-Side		18	Options:	
Throttle Control Cable	Oil Change	19	Accessories	5
Air Filter, Engine19	Oil Change	18 18	Spark Arrester	
Air Screen, Engine18	Oil Type	13,18	•	
Assembly7-10	Preparation		P	
•		50-55	Parking Brake	11-12
В	Starting	14		
Battery:	Storage	27	Parts Bag	
Charging 8	3		Parts, Replacement/Repai	
Cleaning 17	F		Product Specifications	3
Installation 9	Filter:			
Levels		19	R	
Preparation 8			Repair Parts	32-47
Starting with Weak Battery 24	Fuel:			
Storage 27		14	S	
Terminals 17	Storage		_	0
Belt:	Fuse		Safety Rules	
Motion Drive	ruse	20	Seat	
Removal/Replacement 23	u		Service and Adjustments	
Mower Belt(s)	Н		Carburetor	
Removal/Replacement 22	Hood Removal/Installa	tion 25	Fuse	
Blade:	_		Hood Removal/Installa	ation 25
Sharpening17	L		Motion Drive Belt	ant 00
Replacement 17	Leveling Mower Deck	21	Removal/Replacen	nent 23
Brake Adjustment22	Lubrication:		Mower Belt(s) Removal/Replacen	nent 22
	Chart	16	Mower Adjustment	10111
С	Engine		Front-to-Back	21
Carburetor Adjustment26	g		Side-to-Side	21
	М		Mower Removal/Instal	
Controls, Tractor	Maintenance Schedule	10	Tire Care	
Customer Responsibilities 16-19		10	Slope Guide Sheet	
Engine:	Mower:			
Air Filter19	Adjustment, Front-		Spark Plug(s)	
Air Screen	Adjustment, Side-to	o-Side 21	Specifications	3
Cooling Fins	Blade Replacemen	t1/	Starting the Engine	14
Engine Oil 13,18 Fuel Filter 19	Blade Sharpening	17	Steering Wheel	7,24
Spark Plug(s)19	Cutting Height Installation	12	Stopping the Tractor	
Tractor:	Operation	13	Storage	
Battery 17	Removal	20	otorage	
Blade 17	Mowing Tips		<b>T</b>	
Lubrication Chart 16			Thomas	,
Maintenance Schedule 16	Muffler		Throttle Control Cable Adju	
Tire Care 8,17,27	Spark Arrester	3,40	Tires	
Transaxle 18			Trouble Shooting Chart	28-29
Cutting Height, Mower 12			Transaxle	
			W	
			Warranty	3
			Wiring Diagram	
	<u>-</u>			
	4		Wiring Schematic	31

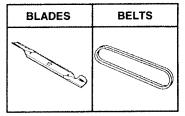
# **ACCESSORIES AND ATTACHMENTS**

These accessories and attachments were available through most Sears retail outlets and service centers when the tractor was purchased. Most Sears stores can order these items for you when you provide the model number of your tractor.

#### **ENGINE**

SPARK PLUG	GAS CAN	ENGINE OIL	FUEL STABILIZER	AIR FILTER

#### **MAINTENANCE**



#### **PERFORMANCE**

Sears offers a wide variety of attachments that fit your tractor. Many of these are listed below with brief explanations of how they can help you. This list was current at the time of publication; however, it may change in future years - more attachments may be added, changes may be made in these attachments, or some may no longer be available or fit your model. Contact your nearest Sears store for the accessories and attachments that are available for your tractor.

Most of these attachments do not require additional hitches or conversion kits (those that do are indicated) and are designed for easy attaching and detaching.

**AERATOR** promotes deep root growth for a healthy lawn. Tapered 2.5-inch steel spikes mounted on 10-inch diameter discs puncture holes in soil at close intervals to let moisture soak in. Steel weight tray for increased penetration.

BUMPER protects front end of tractor from damage.

**CARTS** make hauling easy. Variety of sizes available, plus accessories such as side panel kits, tool caddy, cart cover, protective mat and dolly.

**CORING AERATOR** takes small plugs out of soil to allow moisture and nutrients to reach grass roots. 36-inch swath. 24 hardened steel coring tips. 150 lb. capacity weight tray.

EASY OIL DRAIN VALVE makes oil changes easier, faster.

**FRONT NOSE ROLLER** canters in front of mower deck to reduce chances of "scalping" on uneven terrain.

**GANG HITCH** lets you tow 2 or 3 pull-behind attachments at once, such as sweepers, dethatchers, aerators (not for use with rollers, carts or other heavy attachments).

**GAUGE WHEELS** on both sides of the mower deck reduce chances of "scalping" on uneven terrain. For mower decks not so equipped.

MULCH RAKE/DETHATCHER loosens soil and flips thatch and matted leaves to lawn surface for easy pickup. Twenty spring tine teeth. Useful to prepare bare areas for seeding. Available for front or rear mounting. HIGH PERFORMANCE REEL-ACTION SPRING TINE DETHATCHER covers 36-inch wide path and tosses thatch into large hopper. Mounts behind tractor.

**MULCHING KIT**, once installed, lets you mulch, discharge or bag clippings (bagger optional) without changing blades. For models not equipped as 3-in-1 Convertible mowers.

**RAMP TOPS AND FEET** let you load and unload tractor from a pickup truck. Use with 2 x 8 or 2 x 10 lumber.

**ROLLER** for smoother lawn surface. 36-inch wide, 18-inch diameter water-tight drum holds up to 390 lbs. of weight. Rounded edges prevent harm to turf. Adjustable scraper automatically cleans drum.

**SLEEVE HITCH** for use with master lift system. Single pin couples/uncouples.

**SNOW BLADE** for snow removal only. 14-inch high, 48-inch wide blade clears 42-inch path when angled left or right. Raises, lowers with side lever. Adjustable skids; replaceable, reversible scraper bar. (Use with tire chains and wheel weights and/or rear drawbar weight.)

**SNOWTHROWER** has 40-inch swath. Drum-type auger handles powdery and wet/heavy snow. Mounts easily with simple pin arrangement. Discharge chute adjusts from tractor seat. 6-inch diameter spout discharges snow 10 to 50 feet. Lift controlled at tractor seat. (Use with chains and wheel weights and/or rear drawbar weight.)

**SPRAYERS** use 12-volt DC electric motor that connects to the tractor battery or other 12-volt source. Includes booms for automatic spraying and hand held wand for spot spraying. Wand has adjustable spray pattern. For applying herbicides, insecticides, fungicides and liquid fertilizers.

**SPREADER/SEEDERS** make seeding, fertilizing, and weed killing easy. Broadcast spreaders are also useful for granular deicers and sand.

SWEEPERS let you collect grass clippings and leaves.

TILLER has 8 hp engine to prepare seed beds, cultivate, and compost garden residue. Chain-drive transmission. Six 11-inch diameter one piece heat-treated steel tines. Tills 30-inch path. (Requires sleeve hitch.) Or use 5 hp tow-behind TILLER with 36-inch swath to prepare seed beds, cultivate and compost garden residue. Tiller has its own built-in lift and depth control system and does NOT require a sleeve hitch. Fits any lawn, yard or garden tractor. Simply hook up to the tractor drawbar and go! Optional accessories for 5 hp tiller convert unit for dethatching, aerating, hilling...without tools.

TIRE CHAINS are heavy duty; closely spaced extra-large cross links give smooth ride, outstanding traction.

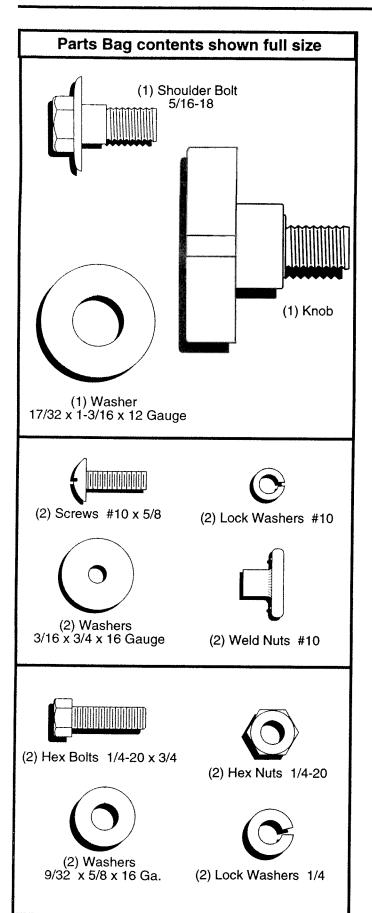
TRACTOR CAB has heavy duty vinyl fabric over tubular steel frame, ABS plastic top; clear plastic windshield offers 360 degree visibility. Hinged metal doors with catch. Keeps operator warm and dry. Remove vinyl sides and windshields for use as sun protector in summer. Optional accessories include: tinted/tempered solid safety glass windshield with hand operated wiper; 12-volt amber caution light for mounting on cab top.

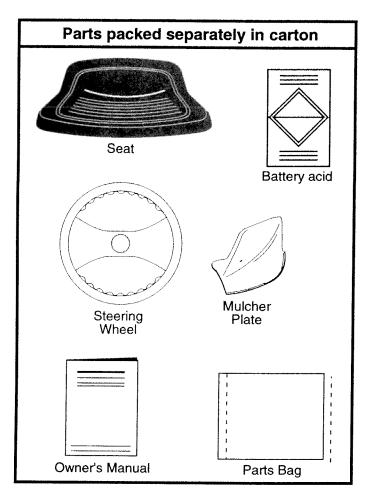
VACS for powerful collection of heavy grass clippings and leaves. Optional wand attachment to pick up debris in hard-to-reach places. VAC/CHIPPER includes a chipper-shredder.

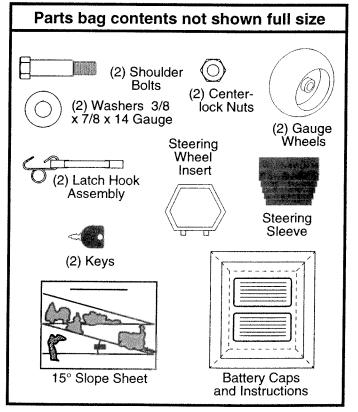
**WEIGHT BRACKET** for drawbar for snow removal applications. Uses (1) 55 lb. weight.

WHEEL WEIGHTS for rear wheels provide needed traction for snow removal or dozing heavy materials.

# **CONTENTS OF HARDWARE PACK**







Your new tractor has been assembled at the factory with exception of those parts left unassembled for shipping purposes. To ensure safe and proper operation of your tractor, all parts and hardware you assemble must be tightened securely. Use the correct tools as necessary to insure proper tightness.

#### TOOLS REQUIRED FOR ASSEMBLY

A socket wrench set will make assembly easier. Standard wrench sizes are listed.

- (1) 9/16" wrench
- (2) 7/16" wrench
- (1) 1/2" wrench
- (1) 3/4" socket w/drive ratchet
- Utility knife
  Tire pressure gauge
- (1) Phillips Screwdriver

When right and left hand is mentioned in this manual, it means when you are in the operating position (seated behind the steering wheel).

#### TO REMOVE TRACTOR FROM CARTON

#### UNPACK CARTON

- Remove all accessible loose parts and parts cartons from carton (See page 6).
- Cut, from top to bottom, along lines on all four corners of carton, and lay panels flat.
- Check for any additional loose parts or cartons and remove.

#### **BEFORE ROLLING TRACTOR OFF SKID**

#### ATTACH STEERING WHEEL (See Fig. 1)

- Remove locknut and large flat washer from steering shaft.
- Position front wheels of the tractor so they are pointing straight forward.
- Slide the steering sleeve over the steering shaft.
- Position steering wheel so cross bars are horizontal (left to right) and slide onto adapter.
- Secure steering wheel to steering shaft with locknut and large flat washer previously removed. Tighten securely.
- Snap steering wheel insert into center of steering wheel.
- Remove protective plastic from tractor hood and grill.

**IMPORTANT:** CHECK FOR AND REMOVE ANY STAPLES IN SKID THAT MAY PUNCTURE TIRES WHERE TRACTOR IS TO ROLL OFF SKID.

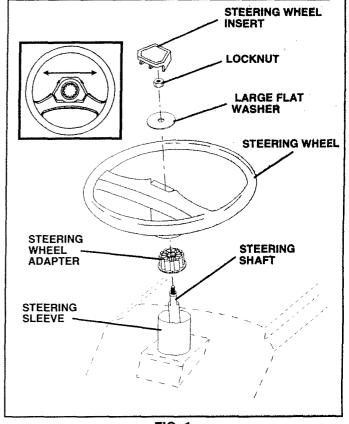


FIG. 1

#### TO ROLL TRACTOR OFF SKID (See Fig. 8)

- Raise attachment lift lever to its highest position.
- Release parking brake by depressing clutch/brake pedal.
- Place freewheel control in freewheeling position to disengage transmission (See "TO TRANSPORT" in Operation section of this manual).
- Roll tractor backwards off skid.
- Remove banding holding discharge guard up against tractor.

#### **HOW TO SET UP YOUR TRACTOR**

#### PREPARE BATTERY (See Figs. 2A and 2B)



CAUTION: Wear eye and face shield.

Wash hands or clothing immediately if accidentally in contact with battery acid.

Do not smoke. Fumes from charged battery acid are explosive.

Read the instructions included with the battery vent caps. Always wear gloves, clothing and goggles to protect your hands, skin and eyes.

Your tractor has a battery charging system which is sufficient for normal use. However, periodic charging of the battery with an automotive charger will extend its life.

- See instructions packed with vent caps in parts bag.
- Lift hood to raised position.
- Remove battery from tractor to fill with acid and charge.
   To remove battery, remove terminal guard and battery bolts securing battery to tractor.
- Fill battery with acid. Fill each cell until it reaches the bottom of the vent wells. Do not overfill.
- Allow battery to stand and settle for at least thirty minutes. After standing, check the battery cell acid level. If below the vent wells, add more acid until the correct level is reached.

While battery is standing (after adding acid) and later, while battery is being charged, continue with assembly of tractor.

**IMPORTANT:** TO MAXIMIZE THE LIFE OF YOUR BATTERY, IT IS NECESSARY THAT THE BATTERY BE CHARGED BEFORE USE. FAILURE TO CHARGE BATTERY CAN RESULT IN A SHORTENED BATTERY LIFE.

- Charge battery at a rate of 6 amperes for 1 hour. Use a 12 volt battery charger. Observe all safety precautions required for battery charging.
- Check the acid level after the battery is charged. If the acid has fallen below the correct level, add distilled or iron free water.
- Install the vent caps to cover the vent wells. Wash the top of the battery with water to remove any acid, then wipe dry.
- Check battery case for leakage to make sure that no damage has occurred in handling.
- Dispose of excess battery acid. Neutralize acid for disposal by adding it to two gallons of water in a five gallon plastic container. Stir with a wooden or plastic paddle while adding baking soda until the addition of more soda causes no more foaming.
- Follow instructions on how to install battery.

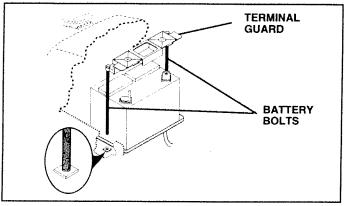


FIG. 2A

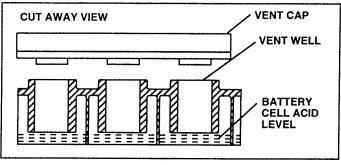


FIG. 2B

#### **INSTALL SEAT (See Fig. 3)**

Adjust seat before tightening adjustment knob.

- Remove cardboard packing on seat pan.
- Place seat on seat pan and assemble shoulder bolt.
- Assemble adjustment knob and flat washer loosely. Do not tighten.
- Tighten shoulder bolt securely.
- Lower seat into operating position and sit on seat.
- Slide seat until a comfortable position is reached which allows you to press clutch/brake pedal all the way down.
- Get off seat without moving its adjusted position.
- Raise seat and tighten adjustment knob securely.

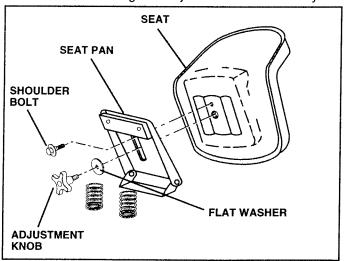


FIG. 3

#### **CHECK TIRE PRESSURE**

The tires on your tractor were overinflated at the factory for shipping purposes. Correct tire pressure is important for best cutting performance.

 Reduce tire pressure to PSI shown in "PRODUCT SPECIFICATIONS" on page 3 of this manual.

#### **CHECK DECK LEVELNESS**

For best cutting results, mower housing should be properly leveled. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.

# CHECK FOR PROPER POSITION OF ALL BELTS

See the figures that are shown for replacing motion and mower blade drive belts in the Service and Adjustments section of this manual. Verify that the belts are routed correctly.

#### CHECK BRAKE SYSTEM

After you learn how to operate your tractor, check to see that the brake is properly adjusted. See "TO ADJUST BRAKE" in the Service and Adjustments section of this manual.

#### **INSTALL BATTERY (See Figs. 4 and 5)**



CAUTION: Do not short battery terminals. Before installing battery, remove metal bracelets, wristwatch bands, rings, etc.

Positive terminal must be connected first to prevent sparking from accidental grounding.

- Lift hood to raised position.
- Be sure battery drain tube has not come loose and is securely attached to drain in battery tray.
- Lower battery into battery tray with terminals to front of tractor.
- Position terminal guard over battery and install battery bolts through guard mounting holes and into threaded fasteners on support plate.
- Tighten battery bolts securely, but do not over tighten.
- Open terminal access doors.
- First connect RED battery cable to positive (+) battery terminal with hex bolt, flat washer, lock washer and hex nut as shown. Tighten securely.
- Connect BLACK grounding cable to negative (-) battery terminal with remaining hex bolt, flat washer, lock washer and hex nut. Tighten securely.
- · Close terminal access doors.

Use terminal access doors for:

- Inspection for secure connections (to tighten hardware).
- Inspection for corrosion.
- Testing battery.
- Jumping (if required).
- Periodic charging.

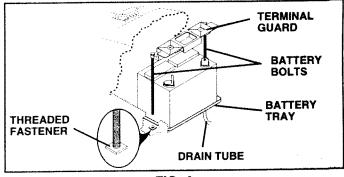


FIG. 4

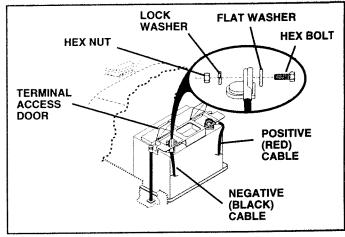


FIG. 5

# ASSEMBLE GAUGE WHEELS TO MOWER DECK (See Fig. 6)

Assemble gauge wheels with tractor on a flat level surface.

- Adjust mower to desired cutting height (See "TO AD-JUST MOWER CUTTING HEIGHT" in the Operation section of this manual).
- With mower in desired height of cut position, gauge wheels should be assembled so they are slightly off the ground. Install gauge wheel in appropriate hole with shoulder bolt, 3/8 washer, and 3/8-16 locknut and tighten securely.
- Repeat for opposite side installing gauge wheel in same adjustment hole.

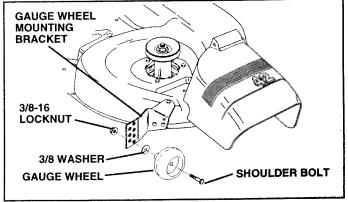


FIG. 6

# INSTALL MULCHER PLATE (See Figs. 7A & 7B)

 Install two latch hooks to mulcher plate using screw, washer, lock washer, and weld nut as shown.

**NOTE:** Pre-assemble weld nut to latch hook by inserting weld nut from the top with hook pointing down.

- · Tighten hardware securely.
- Raise and hold deflector shield in upright position.
- Place front of mulcher plate over front of mower deck opening and slide into place, as shown.
- Hook front latch into hole on front of mower deck.
- Hook rear latch into hole on back of mower deck.



CAUTION: Do not remove discharge guard from mower. Raise and hold guard when attaching mulcher plate and allow it to rest on plate while in operation.

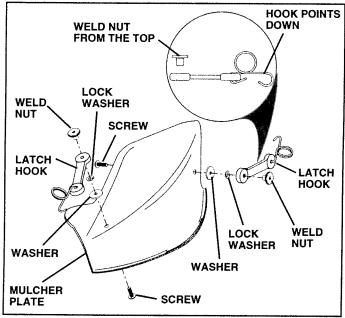


FIG. 7A

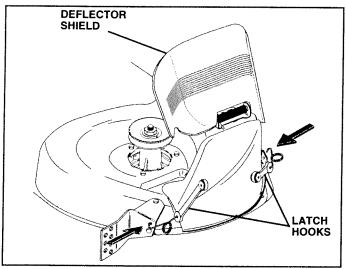


FIG. 7B

# TO CONVERT TO BAGGING OR DISCHARGING

Simply remove mulcher plate and store in a safe place. Your mower is now ready for discharging or installation of optional grass catcher accessory.

#### ✓ CHECKLIST

BEFORE YOU OPERATE AND ENJOY YOUR NEW TRACTOR, WE WISH TO ASSURE THAT YOU RECEIVE THE BEST PERFORMANCE AND SATISFACTION FROM THIS QUALITY PRODUCT.

PLEASE REVIEW THE FOLLOWING CHECKLIST:

- ✓ All assembly instructions have been completed.
- ✓ No remaining loose parts in carton.
- ✓ Battery is properly prepared and charged. (Minimum 1 hour at 6 amps).
- Seat is adjusted comfortably and tightened securely.
- ✓ All tires are properly inflated. (For shipping purposes, the tires were overinflated at the factory).
- Be sure mower deck is properly leveled side-to-side/ front-to-rear for best cutting results. (Tires must be properly inflated for leveling).
- Check mower and drive belts. Be sure they are routed properly around pulleys and inside all belt keepers.
- ✓ Check wiring. See that all connections are still secure and wires are properly clamped.
- Before driving tractor, be sure freewheel control is in drive position.

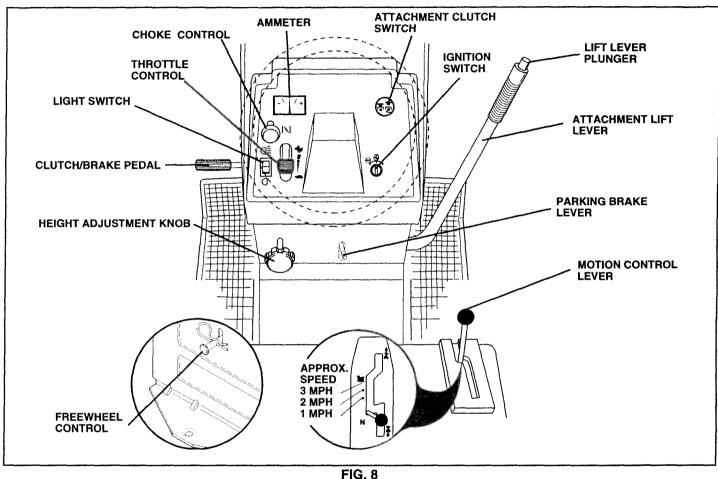
WHILE LEARNING HOW TO USE YOUR TRACTOR, PAY EXTRA ATTENTION TO THE FOLLOWING IMPORTANT ITEMS:

- Engine oil is at proper level.
- Fuel tank is filled with fresh, clean, regular unleaded gasoline.
- Become familiar with all controls their location and function. Operate them before you start the engine.
- Be sure brake system is in safe operating condition.
- ✓ It is important to purge the transmission before you operate your new tractor for the first time. Follow proper starting and transmission purging instructions (See "TO START ENGINE" and "PURGE TRANSMIS-SION" in Operation section of this manual).

#### **KNOW YOUR TRACTOR**

#### READ THIS OWNER'S MANUAL AND SAFETY RULES BEFORE OPERATING YOUR TRACTOR

Compare the illustrations with your tractor to familiarize yourself with the locations of various controls and adjustments. Save this manual for future reference.



rig. o

Our tractors conform to the safety standards of the American National Standards Institute.

**ATTACHMENT CLUTCH SWITCH**: Used to engage the mower blades, or other attachments mounted to your tractor.

LIGHT SWITCH: Turns the headlights on and off.

**THROTTLE CONTROL**: Used to control engine speed. **CHOKE CONTROL**: Used when starting a cold engine.

**CLUTCH/BRAKE PEDAL**: Used for declutching and braking the tractor and starting the engine.

**PARKING BRAKE LEVER**: Locks clutch/brake pedal into the brake position.

**AMMETER**: Indicates charging (+) or discharging (-) of battery.

**HEIGHT ADJUSTMENT KNOB**: Used to release attachment lift lever when changing its position.

**MOTION CONTROL LEVER:** Selects the speed and direction of tractor.

**LIFT LEVER PLUNGER**: Used to release attachment lift lever when changing its position.

**ATTACHMENT LIFT LEVER**: Used to raise and lower the mower deck or other attachments mounted to your tractor.

**IGNITION SWITCH**: Used for starting and stopping the engine.

**FREEWHEEL CONTROL:** Disengages transmission for pushing or slowly towing the tractor with the engine off.



The operation of any tractor can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields while operating your tractor or performing any adjustments or repairs. We recommend a wide vision safety mask over the spectacles or standard safety glasses.

#### HOW TO USE YOUR TRACTOR TO SET PARKING BRAKE (See Fig. 9)

Your tractor is equipped with an operator presence sensing switch. When engine is running, any attempt by the operator to leave the seat without first setting the parking brake will shut off the engine.

- Depress clutch/brake pedal into full "BRAKE" position and hold.
- Place parking brake lever in "ENGAGED" position and release pressure from clutch/brake pedal. Pedal should remain in "BRAKE" position. Make sure parking brake will hold vehicle secure.

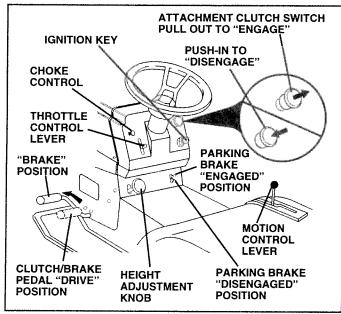


FIG. 9

#### STOPPING (See Fig. 9)

**MOWER BLADES -**

 Move attachment clutch switch to "DISENGAGED" position.

**GROUND DRIVE -**

- Depress clutch/brake pedal into full "BRAKE" position.
- Move motion control lever to neutral (N) position.

IMPORTANT: THE MOTION CONTROL LEVER DOES NOT RETURN TO NEUTRAL (N) POSITION WHEN THE CLUTCH/BRAKE PEDAL IS DEPRESSED. ENGINE -

Move throttle control to slow (\*\*) position.

**NOTE:** Failure to move throttle control to slow () position and allowing engine to idle before stopping may cause engine to "backfire".

- Turn ignition key to "OFF" position and remove key. Always remove key when leaving tractor to prevent unauthorized use.
- Never use choke to stop engine.

**NOTE:** Under certain conditions when tractor is standing idle with the engine running, hot engine exhaust gases may cause "browning" of grass. To eliminate this possibility, always stop engine when stopping tractor on grass areas.



CAUTION: Always stop tractor completely, as described above, before leaving the operator's position; to empty grass catcher, etc.

#### TO USE THROTTLE CONTROL (See Fig. 9)

Always operate engine at full throttle.

- Operating engine at less than full throttle reduces the battery charging rate.
- Full throttle offers the best bagging and mower performance.

#### TO USE CHOKE CONTROL (See Fig. 9)

Use choke control whenever you are starting a cold engine. Do not use to start a warm engine.

 To engage choke control, pull knob out. Slowly push knob in to disengage.

# TO MOVE FORWARD AND BACKWARD (See Fig. 9)

The direction and speed of movement is controlled by the motion control lever.

- Start tractor with motion control lever in neutral (N) position.
- Release parking brake and clutch/brake pedal.
- · Slowly move motion control lever to desired position.

# TO ADJUST MOWER CUTTING HEIGHT (See Fig. 9)

The cutting height is controlled by turning the height adjustment knob in desired direction.

- Turn knob clockwise ( ) to raise cutting height.
- Turn knob counterclockwise () to lower cutting height.

The cutting height range is approximately 1-1/2" to 4". The heights are measured from the ground to the blade tip with the engine not running. These heights are approximate and may vary depending upon soil conditions, height of grass and types of grass being mowed.

- The average lawn should be cut to approximately 2-1/2 inches during the cool season and to over 3 inches during hot months. For healthier and better looking lawns, mow often and after moderate growth.
- For best cutting performance, grass over 6 inches in height should be mowed twice. Make the first cut relatively high; the second to desired height.

#### TO OPERATE MOWER (See Fig. 10)

Your tractor is equipped with an operator presence sensing switch. Any attempt by the operator to leave the seat with the engine running and the attachment clutch engaged will shut off the engine.

- Select desired height of cut.
- · Lower mower with attachment lift control.
- Start mower blades by engaging attachment clutch control.
- TO STOP MOWER BLADES disengage attachment clutch control.



CAUTION: Do not operate the mower without either the entire grass catcher, on mowers so equipped, or the discharge guard in place.

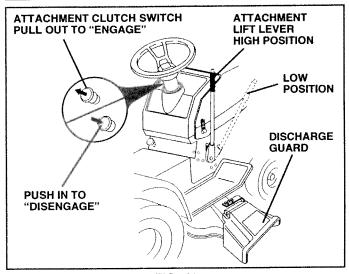


FIG. 10

#### TO OPERATE ON HILLS



CAUTION: Do not drive up or down hills with slopes greater than 15° and do not drive across any slope.

- Choose the slowest speed before starting up or down hills
- Avoid stopping or changing speed on hills.
- If slowing is necessary, move throttle control lever to slower position.
- If stopping is absolutely necessary, push clutch/brake pedal quickly to brake position and engage parking brake.
- Move motion control lever to neutral (N) position.

IMPORTANT: THE MOTION CONTROL LEVER DOES NOT RETURN TO NEUTRAL (N) POSITION WHEN THE CLUTCH/BRAKE PEDAL IS DEPRESSED.

 To restart movement, slowly release parking brake and clutch/brake pedal.

- Slowly move motion control lever to slowest setting.
- Make all turns slowly.

#### TO TRANSPORT (See Figs. 8 and 11)

When pushing or towing your tractor, be sure to disengage transmission by placing freewheel control in freewheeling position. Free wheel control is located at the rear drawbar of tractor.

- Raise attachment lift to highest position with attachment lift control.
- Pull freewheel control knob out and hold in position by inserting retainer spring into forward hole of control rod.
- Do not push or tow tractor at more than two (2) MPH.
- To reengage transmission, reverse above procedure.

**NOTE**: To protect hood from damage when transporting your tractor on a truck or a trailer, be sure hood is closed and secured to tractor. Use an appropriate means of tying hood to tractor (rope, cord, etc.).

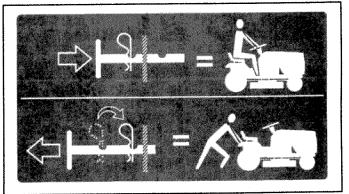


FIG. 11

#### BEFORE STARTING THE ENGINE

#### CHECK ENGINE OIL LEVEL (See Fig. 17)

- The engine in your tractor has been shipped, from the factory, already filled with summer weight oil.
- Check engine oil with tractor on level ground.
- Remove oil fill cap/dipstick and wipe clean, reinsert the dipstick and push it all the way down into the tube, wait for a few seconds, remove and read oil level. If necessary, add oil until "FULL" mark on dipstick is reached. Do not overfill.
- For cold weather operation you should change oil for easier starting (See "OIL VISCOSITY CHART" in the Customer Responsibilities section of this manual).
- To change engine oil, see the Customer Responsibilities section in this manual.

#### ADD GASOLINE

• Fill fuel tank. Use fresh, clean, regular unleaded gasoline. (Use of leaded gasoline will increase carbon and lead oxide deposits and reduce valve life).

**IMPORTANT:** WHEN OPERATING IN TEMPERATURES BELOW 32°F(0°C), USE FRESH, CLEAN WINTER GRADE GASOLINE TO HELP INSURE GOOD COLD WEATHER STARTING.

WARNING: Experience indicates that alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage. To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Use fresh fuel next season. See Storage Instructions for additional information. Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.



CAUTION: Fill to bottom of gas tank filler neck. Do not overfill. Wipe off any spilled oil or fuel. Do not store, spill or use gasoline near an open flame.

#### TO START ENGINE (See Fig. 9)

When starting engine for the first time or if engine has run out of fuel, it will take extra cranking time to move fuel from the tank to the engine.

- Depress clutch/brake pedal and set parking brake.
- Place motion control lever in neutral (N) position.
- Move attachment clutch to "DISENGAGED" position.
- Pull choke control out to choke (|\(\circ\)|) position for cold engine start. For warm engine start do not use choke control.
- Move throttle control to midway between fast (\*) and slow (\*) positions.
- Insert key into ignition and turn key clockwise to "START" position and release key as soon as engine starts. Do not run starter continuously for more than fifteen seconds per minute. If engine does not start after several attempts, move throttle control to fast (\*) position, wait a few minutes and try again.
- When engine starts, slowly push choke control in.
- Move throttle control to fast (4) position.
- Allow engine to warm up for a few minutes before engaging drive or attachments.

IMPORTANT: COLD STARTING FOR HYDRO (BELOW 40°F) - AFTER STARTING ENGINE AND BEFORE DRIVING, LET TRANSMISSION WARM UP FOR ONE (1) MINUTE BY PLACING MOTION CONTROL LEVER IN NEUTRAL (N) POSITION AND RELEASING CLUTCH/BRAKE PEDAL.

**NOTE:** If at a high altitude (above 3000 feet) or in cold temperatures (below 32°F), the carburetor fuel mixture may need to be adjusted for best engine performance. See "TO ADJUST CARBURETOR" in the Service and Adjustments section of this manual.

#### PURGE TRANSMISSION



CAUTION: Never engage or disengage freewheel lever while the engine is running.

To ensure proper operation and performance, it is recommended that the transmission be purged before operating tractor for the first time. This procedure will remove any trapped air inside the transmission which may have developed during shipping of your tractor.

**IMPORTANT:** SHOULD YOUR TRANSMISSION REQUIRE REMOVAL FOR SERVICE OR REPLACEMENT, IT SHOULD BE PURGED AFTER REINSTALLATION BEFORE OPERATING THE TRACTOR.

- Place tractor safely on level surface with engine off and parking brake set.
- Disengage transmission by placing freewheel control in freewheeling position (See "TO TRANSPORT" in this section of manual).
- Sitting in the tractor seat, start engine. After the engine is running, move throttle control to slow ( ) position. With motion control lever in neutral (N) position, slowly disengage clutch/brake pedal.
- Move motion control lever to full forward position and hold for five (5) seconds. Move lever to full reverse position and hold for five (5) seconds. Repeat this procedure three (3) times.

**NOTE:** During this procedure there will be no movement of drive wheels. The air is being removed from hydraulic drive system.

- Move motion control lever to neutral (N) position. Shutoff engine and set parking brake.
- Engage transmission by placing freewheel control in driving position (See "TO TRANSPORT" in this section of manual).
- Sitting in the tractor seat, start engine. After the engine is running, move throttle control to half (1/2) speed. With motion control lever in neutral (N) position, slowly disengage clutch/brake pedal.
- Slowly move motion control lever forward, after the tractor moves approximately five (5) feet, slowly move motion control lever to reverse position. After the tractor moves approximately five (5) feet return the motion control lever to the neutral (N) position. Repeat this procedure with the motion control lever three (3) times.
- Your tractor is now purged and now ready for normal operation.

#### MOWING TIPS

- Tire chains cannot be used when the mower housing is attached to tractor.
- Mower should be properly leveled for best mowing performance. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.
- The left hand side of mower should be used for trimming.
- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the machine. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished (See Fig. 12).
- If grass is extremely tall, it should be mowed twice to reduce load and possible fire hazard from dried clippings. Make first cut relatively high; the second to the desired height.
- Do not mow grass when it is wet. Wet grass will plug mower and leave undesirable clumps. Allow grass to dry before mowing.
- Always operate engine at full throttle when mowing to assure better mowing performance and proper discharge of material. Regulate ground speed by selecting a low enough gear to give the mower cutting performance as well as the quality of cut desired.
- When operating attachments, select a ground speed that will suit the terrain and give best performance of the attachment being used.

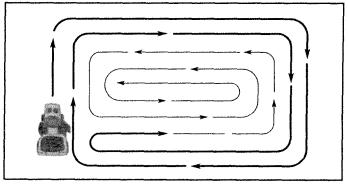


FIG. 12

#### **MULCHING MOWING TIPS**

IMPORTANT: FOR BEST PERFORMANCE, KEEP MOWER HOUSING FREE OF BUILT-UP GRASS AND TRASH. CLEAN AFTER EACH USE.

- The special mulching blade will recut the grass clippings many times and reduce them in size so that as they fall onto the lawn they will disperse into the grass and not be noticed. Also, the mulched grass will biodegrade quickly to provide nutrients for the lawn. Always mulch with your highest engine (blade) speed as this will provide the best recutting action of the blades.
- Avoid cutting your lawn when it is wet. Wet grass tends to form clumps and interferes with the mulching action.
   The best time to mow your lawn is the early afternoon.
   At this time the grass has dried and the newly cut area will not be exposed to the direct sun.
- For best results, adjust the mower cutting height so that the mower cuts off only the top one-third of the grass blades (See Fig. 13). For extremely heavy mulching, reduce your width of cut on each pass and mow slowly.
- Certain types of grass and grass conditions may require that an area be mulched a second time to completely hide the clippings. When doing a second cut, mow across or perpendicular to the first cut path.
- Change your cutting pattern from week to week. Mow north to south one week then change to east to west the next week. This will help prevent matting and graining of the lawn.

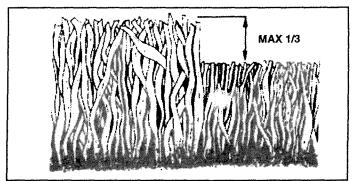


FIG. 13

FI AS	IAINTENANCE SCHEDULI LL IN DATES S YOU COMPLETE EGULAR SERVICE		aEFOR!	EACH!	JSE HOURS EVERY	HOUR	S HOUS 25 HOUS EVERY	AS HOUSOHOUS VERY	RS HOU 100 HOU EVERY S	RS ON EASON EFORE	STORAL SER	VICE	: DA	TES
	Check Brake Operation	V		1										
	Check Tire Pressure	V		1		1		1						
I	Check for Loose Fasteners	V					17		V					
R	Sharpen/Replace Mower Blades				1/4									
IA C	Lubrication Chart				1				1					
Ť	Check Battery Level/Recharge				6									
0	Clean Battery and Terminals				1				1					
R	Check Transaxle Cooling				V									
	Adjust Blade Belt(s) Tension						<b>1</b> 5							
	Adjust Motion Drive Belt(s) Tension						<b>1</b> 5							
	Check Engine Oil Level	V		1										
	Change Engine Oil		1		1,2,3	<u> </u>		1	V					
Ε	Clean Air Filter				1/2				1					
N	Clean Air Screen				1/2									
G	Inspect Muffler/Spark Arrester					1								
1	Replace Oil Filter (If equipped)						1,2							
N E	Clean Engine Cooling Fins						1/2							
	Replace Spark Plug						1	1						
	Replace Air Filter Paper Cartridge						1/2					7		
	Replace Fuel Filter							1						

- 1 Change more often when operating under a heavy load or in high ambient temperatures.
- 2 Service more often when operating in dirty or dusty conditions.
- 3 If equipped with oil filter, change oil every 50 hours.
- 4 Replace blades more often when mowing in sandy soil.

- 5 If equipped with adjustable system.
- 6 Not required if equipped with maintenance-free battery.
- 7 Tighten front axle pivot bolt to 35 ft.-lbs. maximum. Do not overtighten.

#### **GENERAL RECOMMENDATIONS**

The warranty on this tractor does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, operator must maintain tractor as instructed in this manual.

Some adjustments will need to be made periodically to properly maintain your tractor.

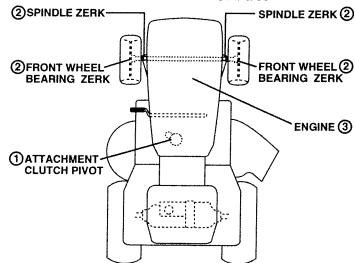
All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

 Once a year you should replace the spark plug, clean or replace air filter, and check blades and belts for wear. A new spark plug and clean air filter assure proper air-fuel mixture and help your engine run better and last longer.

#### **BEFORE EACH USE**

- Check engine oil level.
- Check brake operation.
- Check tire pressure.
- Check for loose fasteners.

#### **LUBRICATION CHART**



- (1) SAE 30 MOTOR OIL
- (2) GENERAL PURPOSE GREASE
- 3 REFER TO CUSTOMER RESPONSIBILITIES "ENGINE" SECTION

IMPORTANT: DO NOT OIL OR GREASE THE PIVOT POINTS, WHICH HAVE SPECIAL NYLON BEARINGS. VISCOUS LUBRICANTS WILL ATTRACT DUST AND DIRT THAT WILL SHORTEN THE LIFE OF THE SELF-LUBRICATING BEARINGS. IF YOU FEEL THEY MUST BE LUBRICATED, USE ONLY A DRY, POWDERED GRAPHITE TYPE LUBRICANT SPARINGLY.

#### TRACTOR

Always observe safety rules when performing any maintenance.

#### **BRAKE OPERATION**

If tractor requires more than six (6) feet stopping distance at high speed in highest gear, then brake must be adjusted. (See "TO ADJUST BRAKE" in the Service and Adjustments section of this manual).

#### **TIRES**

- Maintain proper air pressure in all tires (See "PROD-UCT SPECIFICATIONS" on page 3 of this manual).
- Keep tires free of gasoline, oil, or insect control chemicals which can harm rubber.
- Avoid stumps, stones, deep ruts, sharp objects and other hazards that may cause tire damage.

#### **BLADE CARE**

For best results mower blades must be kept sharp. Replace bent or damaged blades.

#### **BLADE REMOVAL (See Fig. 14)**

- Raise mower to highest position to allow access to blades.
- Remove hex bolt, lock washer and flat washer securing blade.
- Install new or resharpened blade with trailing edge up towards deck as shown.
- Reassemble hex bolt, lock washer and flat washer in exact order as shown.
- Tighten bolt securely (30-35 Ft. Lbs. torque).

IMPORTANT: BLADE BOLT IS GRADE 8 HEAT TREATED.

**NOTE:** We do not recommend sharpening blade - but if you do, be sure the blade is balanced.

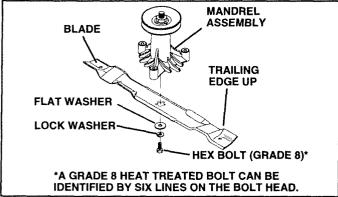


FIG. 14

#### TO SHARPEN BLADE (See Fig. 15)

Care should be taken to keep the blade balanced. An unbalanced blade will cause excessive vibration and eventual damage to mower and engine.

 The blade can be sharpened with a file or on a grinding wheel. Do not attempt to sharpen while on the mower.

- To check blade balance, you will need a 5/8" diameter steel bolt, pin, or a cone balancer. (When using a cone balancer, follow the instructions supplied with balancer).
- Slide blade on to an unthreaded portion of the steel bolt or pin and hold the bolt or pin parallel with the ground.
   If blade is balanced, it should remain in a horizontal position. If either end of the blade moves downward, sharpen the heavy end until the blade is balanced.

**NOTE:** Do not use a nail for balancing blade. The lobes of the center hole may appear to be centered, but are not.

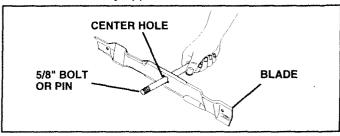


FIG. 15

#### **BATTERY** (See Fig. 16)

Your tractor has a battery charging system which is sufficient for normal use. However, periodic charging of the battery with an automotive charger will extend its life.

- Acid solution level in each battery cell should be even with bottoms of vent wells. Add only distilled or iron free water if necessary. Do not overfill.
- Keep battery and terminals clean.
- Keep battery bolts tight.
- Keep vent caps tight and small vent holes in caps open.
- Recharge at 6 amperes for 1 hour.

#### TO CLEAN BATTERY AND TERMINALS

Corrosion and dirt on the battery and terminals can cause the battery to "leak" power.

- Open battery box door.
- Disconnect BLACK battery cable first then RED battery cable and remove battery from tractor.
- Wash battery with solution of four tablespoons of baking soda to one gallon of water. Be careful not to get the soda solution into the cells.
- Rinse the battery with plain water and dry.
- Clean terminals and battery cable ends with wire brush until bright.
- Coat terminals with grease or petroleum jelly.
- Reinstall battery (See "INSTALL BATTERY" in the Assembly section of this manual).

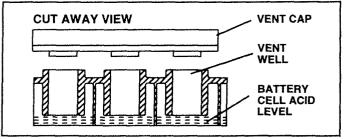


FIG. 16

#### TRANSAXLE COOLING

The fan and cooling fins of transmission should be kept clean to assure proper cooling.

Do not attempt to clean fan or transmission while engine is running or while the transmission is hot.

- Inspect cooling fan to be sure fan blades are intact and clean.
- Inspect cooling fins for dirt, grass clippings and other materials. To prevent damage to seals, do not use compressed air or high pressure sprayer to clean cooling fins.

#### TRANSAXLE PUMP FLUID

The transaxle was sealed at the factory and fluid maintenance is not required for the life of the transaxle. Should the transaxle ever leak or require servicing, contact your nearest authorized service center/department.

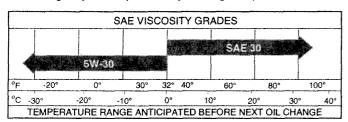
#### V-BELTS

Check V-belts for deterioration and wear after 100 hours of operation and replace if necessary. The belts are not adjustable. Replace belts if they begin to slip from wear.

#### **ENGINE**

#### LUBRICATION

Only use high quality detergent oil rated with API service classification SF or SG. Select the oil's SAE viscosity grade according to your expected operating temperature.



**NOTE:** Although multi-viscosity oils (5W30, 10W30 etc.) improve starting in cold weather, these multi-viscosity oils will result in increased oil consumption when used above 32°F. Check your engine oil level more frequently to avoid possible engine damage from running low on oil.

Change the oil after the first two hours of operation and every 50 hours thereafter or at least once a year if the tractor is not used for 50 hours in one year.

Check the crankcase oil level before starting the engine and after each eight (8) hours of operation. Tighten oil fill cap/dipstick securely each time you check the oil level.

#### TO CHANGE ENGINE OIL (See Fig. 17)

Determine temperature range expected before oil change. All oil must meet API service classification SF or SG.

- Be sure tractor is on level surface.
- · Oil will drain more freely when warm.
- Catch oil in a suitable container.
- Remove oil fill cap/dipstick. Be careful not to allow dirt to enter the engine when changing oil.
- · Remove drain plug.
- After oil has drained completely, replace oil drain plug and tighten securely.
- Refill engine with oil through oil fill dipstick tube. Pour slowly. Do not overfill. For approximate capacity see "PRODUCT SPECIFICATIONS" on page 3 of this manual.
- Use gauge on oil fill cap/dipstick for checking level. Be sure dipstick is in all the way for accurate reading. Keep oil at "FULL" line on dipstick.

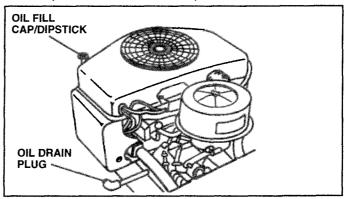


FIG. 17

#### **CLEAN AIR SCREEN (See Fig. 19)**

Air screen must be kept free of dirt and chaff to prevent engine damage from overheating. Clean with a wire brush or compressed air to remove dirt and stubborn dried gum fibers.

#### AIR FILTER (See Fig. 18)

Your engine will not run properly using a dirty air filter. Clean the foam pre-cleaner after every 25 hours of operation or every season. Service paper cartridge every 100 hours of operation or every season, whichever occurs first.

Service air cleaner more often under dusty conditions.

- Remove wing nut and cover.
- Remove seal and cartridge plate.

#### TO SERVICE PRE-CLEANER

- Slide foam pre-cleaner off cartridge.
- Wash it in liquid detergent and water.
- Squeeze it dry in a clean cloth.
- Saturate it in engine oil. Wrap it in clean, absorbent cloth and squeeze to remove excess oil.

#### TO SERVICE CARTRIDGE

- Gently tap the flat side of the paper cartridge to dislodge dirt. Do not wash the paper cartridge or use pressurized air, as this will damage the cartridge. Replace a dirty, bent, or damaged cartridge.
- Reinstall the pre-cleaner (cleaned and oiled) over the paper cartridge.
- Reassemble air cleaner, cartridge plate, and seal.
- Install the air cleaner cover and wing nut. Tighten wing nut 1/2 turn to 1 full turn after nut contacts cover. Do not overtighten.

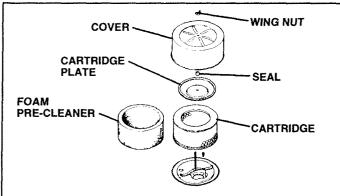


FIG. 18

#### **ENGINE COOLING FINS (See Fig. 19)**

Remove any dust, dirt or oil from engine cooling fins to prevent engine damage from overheating. Engine blower housing must be removed. Remove side panels and hood (See "TO REMOVE HOOD AND GRILL ASSEMBLY" in the Service and Adjustments section of this manual).

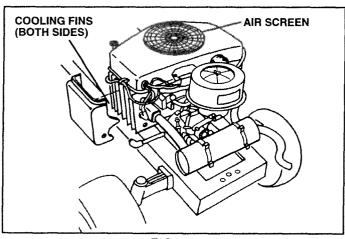


FIG. 19

#### **ENGINE OIL FILTER**

Replace the engine oil filter every season or every other oil change if the tractor is used more than 100 hours in one year.

#### MUFFLER

Inspect and replace corroded muffler and spark arrester (if equipped) as it could create a fire hazard and/or damage.

#### SPARK PLUGS

Replace spark plugs at the beginning of each mowing season or after every 100 hours of use, whichever comes first. Spark plug type and gap setting is shown in "PROD-UCT SPECIFICATIONS" on page 3 of this manual.

#### IN-LINE FUEL FILTER (See Fig. 20)

The fuel filter should be replaced once each season. If fuel filter becomes clogged, obstructing fuel flow to carburetor, replacement is required.

- With engine cool, remove filter and plug fuel line sections.
- Place new fuel filter in position in fuel line with arrow pointing towards carburetor.
- Be sure there are no fuel line leaks and clamps are properly positioned.
- Immediately wipe up any spilled gasoline.

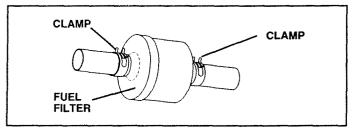


FIG. 20

#### **CLEANING**

- Clean engine, battery, seat, finish, etc. of all foreign matter.
- Keep finished surfaces and wheels free of all gasoline, oil, etc.
- Protect painted surfaces with automotive type wax.

We do not recommend using a garden hose to clean your tractor unless the electrical system, muffler, air filter and carburetor are covered to keep water out. Water in engine can result in a shortened engine life.

#### **CAUTION: BEFORE PERFORMING ANY SERVICE OR ADJUSTMENTS:**



- Depress clutch/brake pedal fully and set parking brake.
- Place motion control lever in neutral (N) position.
- Place attachment clutch in "DISENGAGED" position.
- Turn ignition key "OFF" and remove key.
- Make sure the blades and all moving parts have completely stopped.
- Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with plug.

#### TO REMOVE MOWER (See Fig. 21)

Mower will be easier to remove from the right side of tractor.

- Place attachment clutch switch in "DISENGAGED" position.
- Move attachment lift lever forward to lower mower to its lowest position.
- Roll belt off electric clutch pulley.
- Disconnect anti-sway bar from chassis bracket by removing retainer spring.
- Disconnect suspension arms from rear deck brackets by removing retainer springs.
- Disconnect front links from deck by removing retainer springs.
- Raise lift lever to raise suspension arms. Slide mower out from under tractor.

**IMPORTANT:** IF AN ATTACHMENT OTHER THAN THE MOWER DECK IS TO BE MOUNTED ON THE TRACTOR, REMOVE THE FRONT LINKS.

#### TO INSTALL MOWER (See Fig. 21)

- Raise attachment lift lever to its highest position.
- Slide mower under tractor with discharge guard to right side of tractor.
- · Lower lift lever to its lowest position.
- Install mower in reverse order of removal instructions.

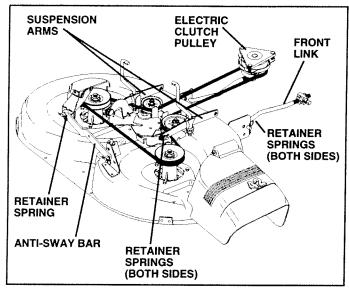


FIG. 21

#### TO LEVEL MOWER HOUSING

Adjust the mower while tractor is parked on level ground or driveway. Make sure tires are properly inflated (See "PRODUCT SPECIFICATIONS" on page 3 of this manual). If tires are over or underinflated, you will not properly adjust your mower.

SIDE-TO-SIDE ADJUSTMENT (See Figs. 22 and 23)

- · Raise mower to its highest position.
- At the midpoint of both sides of mower, measure height from bottom edge of mower to ground. Distance "A" on both sides of mower should be the same or within 1/4" of each other.
- If adjustment is necessary, make adjustment on one side of mower only.
- To raise one side of mower, tighten lift link adjustment nut on that side.
- To lower one side of mower, loosen lift link adjustment nut on that side.

**NOTE**: Each full turn of adjustment nut will change mower height about 1/8".

· Recheck measurements after adjusting.

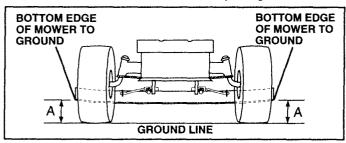


FIG. 22

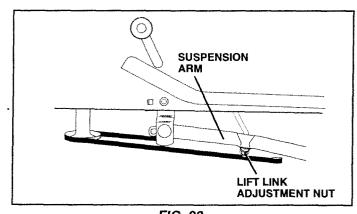


FIG. 23

FRONT-TO-BACK ADJUSTMENT (See Figs. 24 and 25)

IMPORTANT: DECK MUST BE LEVEL SIDE-TO-SIDE. IF THE FOLLOWING FRONT-TO-BACK ADJUSTMENT IS NECESSARY, BE SURE TO ADJUST BOTH FRONT LINKS EQUALLY SO MOWER WILL STAY LEVEL SIDE-TO-SIDE.

To obtain the best cutting results, the mower housing should be adjusted so that the front is approximately 1/4" to 3/4" lower than the rear when the mower is in its highest position.

Check adjustment on right side of tractor. Measure distance "D" directly in front and behind the mandrel at bottom edge of mower housing as shown.

- Before making any necessary adjustments, check that both front links are equal in length. Both links should be approximately 10-3/8".
- If links are not equal in length, adjust one link to same length as other link.
- To lower front of mower loosen nut "E" on both front links an equal number of turns.
- When distance "D" is 1/4" to 3/4" lower at front than rear, tighten nuts "F" against trunnion on both front links.
- To raise front of mower, loosen nut "F" from trunnion on both front links. Tighten nut "E" on both front links an equal number of turns.
- When distance "D" is 1/4" to 3/4" lower at front than rear, tighten nut "F" against trunnion on both front links.
- Recheck side-to-side adjustment.

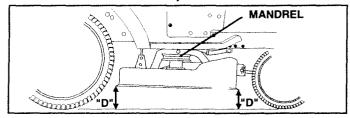


FIG. 24

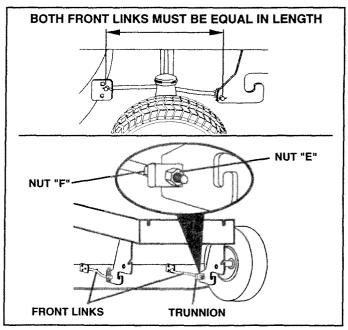


FIG. 25

# TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 26)

The mower blade drive belt may be replaced without tools. Park the tractor on level surface. Engage parking brake.

#### **BELT REMOVAL -**

- Remove mower from tractor (See "TO REMOVE MOWER" in this section of this manual).
- Work belt off both mandrel pulleys and idler pulleys.
- Pull belt away from mower.

#### **BELT INSTALLATION -**

- Install new belt in reverse order of removal.
- Make sure belt is in all pulley grooves and inside all belt guides.
- Install mower in reverse order of removal instructions.

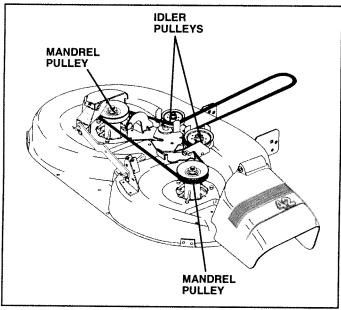


FIG. 26

#### TO ADJUST BRAKE (See Fig. 27)

Your tractor is equipped with an adjustable brake system which is mounted on the right side of the transaxle.

If tractor requires more than six (6) feet stopping distance at high speed in highest gear, then brake must be adjusted.

- Depress clutch/brake pedal and engage parking brake.
- Measure distance between brake operating arm and nut "A" on brake rod.
- If distance is other than 1-3/4", loosen jam nut and turn nut "A" until distance becomes 1-3/4". Retighten jam nut against nut "A".
- Road test tractor for proper stopping distance as stated above. Readjust if necessary. If stopping distance is still greater than six (6) feet in highest gear, further maintenance is necessary. Contact your nearest authorized service center.

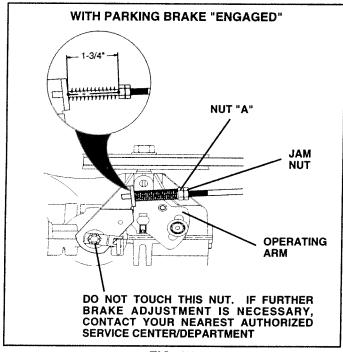


FIG. 27

# TO REPLACE MOTION DRIVE BELT (See Fig. 28)

Park the tractor on level surface. Engage parking brake. For assistance, there is a belt installation guide decal on bottom side of left footrest.

- Remove mower (See "TO REMOVE MOWER" in this section of this manual.)
- Remove upper belt keeper.
- Remove belt from stationary idler and clutching idler.
- Pull belt slack toward rear of tractor. Carefully remove belt upwards from transmission input pulley and over cooling fan blades.
- Pull belt toward front of tractor and remove downward from around engine pulley.
- Install new belt by reversing above procedure.

**IMPORTANT:** MAKE SURE UPPER BELT KEEPER IS POSITIONED PROPERLY BETWEEN LOCATOR TABS.

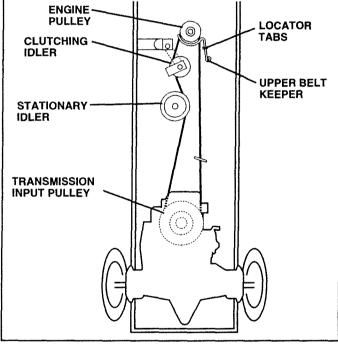


FIG. 28

# TO ADJUST MOTION CONTROL LEVER (See Fig. 29)

The motion control lever has been preset at the factory and adjustment should not be necessary.

If for any reason the motion control lever will not hold its position while at a selected speed, it may be adjusted at the friction pack located on the right side of transmission.

- Park tractor on level surface. Stop tractor by turning ignition key to "OFF" position, and engage parking brake.
- Adjust motion control lever by tightening adjustment locknut one half (1/2) turn.

**NOTE:** If for any reason the effort to move the motion control lever becomes too excessive, reverse the above adjustment procedure by loosening locknut 1/4 to 1/2 turn.

Road test tractor after adjustment and repeat procedure if necessary.

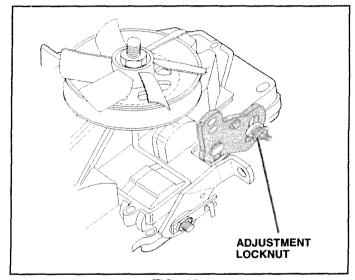


FIG. 29

#### TRANSMISSION REMOVAL/REPLACEMENT

Should your transmission require removal for service or replacement, it should be purged after reinstallation and before operating the tractor. See "PURGE TRANSMISSION" in Operation section of this manual.

#### TO ADJUST STEERING WHEEL ALIGNMENT

If steering wheel crossbars are not horizontal (left to right) when wheels are positioned straight forward, remove steering wheel and reassemble per instructions in the Assembly section of this manual.

#### FRONT WHEEL TOE-IN/CAMBER

The front wheel toe-in and camber are not adjustable on your tractor. If damage has occurred to affect the front wheel toe-in or camber, contact your nearest authorized service center/department.

# TO REMOVE WHEEL FOR REPAIRS (See Fig. 30)

- Block up axle securely.
- Remove axle cover, retaining ring and washers to allow wheel removal (rear wheel contains a square key - Do not lose).
- Repair tire and reassemble.
- On rear wheels only: align grooves in rear wheel hub and axle. Insert square key.
- Replace washers and snap retaining ring securely in axle groove.
- Replace axle cover.

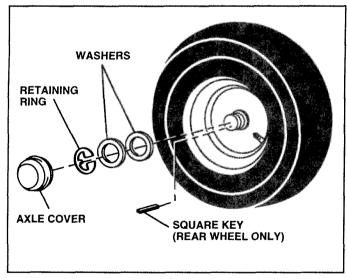


FIG. 30

# TO START ENGINE WITH A WEAK BATTERY (See Fig. 31)



CAUTION: Lead-acid batteries generate explosive gases. Keep sparks, flame and smoking materials away from batteries. Always wear eye protection when around batteries.

If your battery is too weak to start the engine, it should be recharged. If "jumper cables" are used for emergency starting, follow this procedure:

IMPORTANT: YOUR TRACTOR IS EQUIPPED WITH A 12 VOLT NEGATIVE GROUNDED SYSTEM. THE OTHER VEHICLE MUST ALSO BE A 12 VOLT NEGATIVE GROUNDED SYSTEM. DO NOT USE YOUR TRACTOR BATTERY TO START OTHER VEHICLES.

#### TO ATTACH JUMPER CABLES -

- Connect each end of the RED cable to the POSITIVE (+) terminal of each battery, taking care not to short against chassis.
- Connect one end of the BLACK cable to the NEGA-TIVE (-) terminal of fully charged battery.
- Connect the other end of the BLACK cable to good CHASSIS GROUND, away from fuel tank and battery.

#### TO REMOVE CABLES, REVERSE ORDER -

- BLACK cable first from chassis and then from the fully charged battery.
- RED cable last from both batteries.

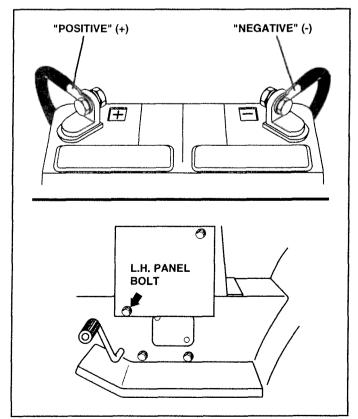


FIG. 31

#### TO REPLACE HEADLIGHT BULB

- Raise hood.
- Pull bulb holder out of the hole in the backside of the grill.
- Replace bulb in holder and push bulb holder securely back into the hole in the backside of the grill.
- Close hood.

#### **INTERLOCKS AND RELAYS**

Loose or damaged wiring may cause your tractor to run poorly, stop running, or prevent it from starting.

 Check wiring. See electrical wiring diagram in the Repair Parts section of this manual.

#### TO REPLACE FUSE

Replace with 30 amp automotive-type plug-in fuse. The fuse holder is located behind the dash.

# TO REMOVE HOOD AND GRILL ASSEMBLY (See Fig. 32)

- Raise hood.
- Unsnap headlight wire connector.
- Stand in front of tractor. Grasp hood at sides, tilt toward engine and lift off of tractor.
- To replace, reverse above procedures.

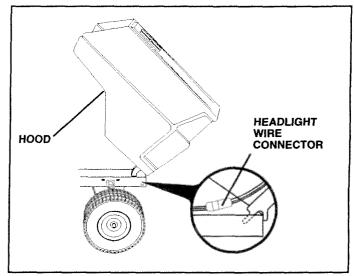


FIG. 32

#### **ENGINE**

# TO ADJUST THROTTLE CONTROL CABLE (See Fig. 33 & 34)

The throttle control has been preset at the factory and adjustment should not be necessary. Check adjustment as described below before loosening cable. If adjustment is necessary, proceed as follows:

- With engine not running, move throttle control lever to fast (\*) position.
- Check that speed control lever is against stop screw. If it is not, loosen casing clamp screw and pull throttle cable until lever is against screw. Tighten clamp screw securely.

#### TO ADJUST CARBURETOR (See Fig. 35)

The carburetor has been present at the factory and adjustment should not be necessary. However, minor adjustment may be required to compensate for differences in fuel, temperature, altitude or load. If the carburetor does need adjustment, proceed as follows:

In general, turning the adjusting needles **in** (clockwise) decreases the supply of fuel to the engine giving a leaner fuel/air mixture. Turning the adjusting needles **out** (counterclockwise) increases the supply of fuel to the engine giving a richer fuel/air mixture.

**IMPORTANT:** DAMAGE TO THE NEEDLES AND THE SEATS IN CARBURETOR MAY RESULT IF SCREW IS TURNED IN TOO TIGHT.

#### PRELIMINARY SETTING -

- Be sure you have a clean air filter, and the throttle control cable is adjusted properly (see above).
- With engine off turn idle fuel adjusting needle in (clockwise) closing it finger tight and then turn out (counterclockwise) 1-1/4 turns.
- Turn main fuel adjusting needle in (clockwise) closing finger tight and then turn out (counterclockwise) 1 turn.

#### FINAL SETTING -

- Start engine and allow to warm for five minutes. Make final adjustments with engine running and shift/motion control lever in neutral (N) position.
- With throttle control lever in fast (�) position, turn main fuel adjusting needle in (clockwise) until engine begins to die then turn out (counterclockwise) until engine runs rough. Turn needle to a point midway between those two positions.
- Idle speed setting With throttle control lever in slow
   (¬) position, engine should idle at 1400 RPM. If
   engine idles too slow or fast, turn idle speed adjusting
   screw in or out until correct idle is attained.
- Idle fuel needle setting With throttle control lever in slow ( ) position, turn idle fuel adjusting needle in (clockwise) until engine begins to die and then turn out (counterclockwise) until engine runs rough. Turn needle to a point midway between those two positions.
- Recheck idle speed. Readjust if necessary.

#### **ACCELERATION TEST -**

Move throttle control lever from slow (-) to fast (-)
position. If engine hesitates or dies, turn idle mixture
screw out (counterclockwise) 1/8 turn. Repeat test and
continue to adjust, if necessary, until engine accelerates smoothly.

High speed stop is factory adjusted. Do not adjust-damage may result.

IMPORTANT: NEVER TAMPER WITH THE ENGINE GOVERNOR, WHICH IS FACTORY SET FOR PROPER ENGINE SPEED. OVERSPEEDING THE ENGINE ABOVE THE FACTORY HIGH SPEED SETTING CAN BE DANGEROUS. IF YOU THINK THE ENGINE-GOVERNED HIGH SPEED NEEDS ADJUSTING, CONTACT YOUR NEAREST AUTHORIZED SERVICE CENTER/DEPARTMENT, WHICH HAS PROPER EQUIPMENT AND EXPERIENCE TO MAKE ANY NECESSARY ADJUSTMENTS.

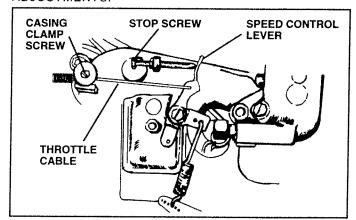


FIG. 33

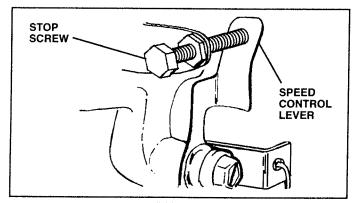
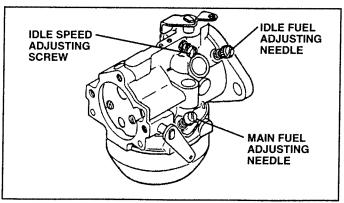


FIG. 34



# **STORAGE**

Immediately prepare your tractor for storage at the end of the season or if the tractor will not be used for 30 days or more.



CAUTION: Never store the tractor with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.

#### TRACTOR

Remove mower from tractor for winter storage. When mower is to be stored for a period of time, clean it thoroughly, remove all dirt, grease, leaves, etc. Store in a clean, dry area.

- Clean entire tractor (See "CLEANING" in the Customer Responsibilities section of this manual).
- Inspect and replace belts, if necessary (See belt replacement instructions in the Service and Adjustments section of this manual).
- Lubricate as shown in the Customer Responsibilities section of this manual.
- Be sure that all nuts, bolts and screws are securely fastened. Inspect moving parts for damage, breakage and wear. Replace if necessary.
- Touch up all rusted or chipped paint surfaces; sand lightly before painting.

#### **BATTERY**

- Fully charge the battery for storage.
- After a period of time in storage, battery may require recharging.
- To help prevent corrosion and power leakage during long periods of storage, battery cables should be disconnected and battery cleaned thoroughly (see "TO CLEAN BATTERY AND TERMINALS" in the Customer Responsibilities section of this manual).
- After cleaning, leave cables disconnected and place cables where they cannot come in contact with battery terminals.
- Be sure battery drain tube is securely attached.
- If battery is removed from tractor for storage, do not store battery directly on concrete or damp surfaces.

#### **ENGINE**

#### **FUEL SYSTEM**

IMPORTANT: IT IS IMPORTANT TO PREVENT GUM DEPOSITS FROM FORMING IN ESSENTIAL FUEL SYSTEM PARTS SUCH AS CARBURETOR, FUEL FILTER, FUEL HOSE, OR TANK DURING STORAGE. ALSO, EXPERIENCE INDICATES THAT ALCOHOL BLENDED FUELS (CALLED GASOHOL OR USING ETHANOL OR METHANOL) CAN ATTRACT MOISTURE WHICH LEADS TO SEPARATION AND FORMATION OF ACIDS DURING STORAGE. ACIDIC GAS CAN DAMAGE THE FUEL SYSTEM OF AN ENGINE WHILE IN STORAGE.

- · Drain the fuel tank.
- Start the engine and let it run until the fuel lines and carburetor are empty.
- Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.
- · Use fresh fuel next season.

NOTE: Fuel stabilizer is an acceptable alternative in minimizing the formation of fuel gum deposits during storage. Add stabilizer to gasoline in fuel tank or storage container. Always follow the mix ratio found on stabilizer container. Run engine at least 10 minutes after adding stabilizer to allow the stabilizer to a light the carburetor. Do not drain the gas tank and carburetor if sing fuel stabilizer.

#### **ENGINE OIL**

Drain oil (with engine warm) and replace with clean engine oil. (See "ENGINE" in the Customer Responsibilities section of this manual).

#### **CYLINDERS**

- Remove spark plug(s).
- Pour one ounce of oil through spark plug hole(s) into cylinder(s).
- Turn ignition key to "START" position for a few seconds to distribute oil.
- Replace with new spark plug(s).

#### OTHER

- Do not store gasoline from one season to another.
- Replace your gasoline can if your can starts to rust.
   Rust and/or dirt in your gasoline will cause problems.
- If possible, store your tractor indoors and cover it to give protection from dust and dirt.
- Cover your tractor with a suitable protective cover that does not retain moisture. Do not use plastic. Plastic cannot breathe which allows condensation to form and will cause your tractor to rust.

IMPORTANT: NEVER COVER TRACTOR WHILE ENGINE AND EXHAUST AREAS ARE STILL WARM.

# TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION				
Will not start	<ol> <li>Out of fuel.</li> <li>Engine not "CHOKED" properly.</li> <li>Engine flooded.</li> <li>Bad spark plug.</li> <li>Dirty air filter.</li> <li>Dirty fuel filter.</li> <li>Water in fuel.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</li> <li>Engine valves out of adjustment.</li> </ol>	<ol> <li>Fill fuel tank.</li> <li>See "TO START ENGINE" in Operation section.</li> <li>Wait several minutes before attempting to start.</li> <li>Replace spark plug.</li> <li>Clean/replace air filter.</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> <li>Check all wiring.</li> <li>Contact an authorized service center/department.</li> <li>Contact an authorized service center/department.</li> </ol>				
Hard to start	<ol> <li>Dirty air filter.</li> <li>Bad spark plug.</li> <li>Weak or dead battery.</li> <li>Dirty fuel filter.</li> <li>Stale or dirty fuel.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</li> <li>Engine valves out of adjustment.</li> </ol>	<ol> <li>Clean/replace air filter.</li> <li>Replace spark plug.</li> <li>Recharge or replace battery.</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and refill with fresh gasoline.</li> <li>Check all wiring.</li> <li>Contact an authorized service center/department.</li> <li>Contact an authorized service center/department.</li> </ol>				
Engine will not turn over	<ol> <li>Clutch/brake pedal not depressed.</li> <li>Attachment clutch is engaged.</li> <li>Weak or dead battery.</li> <li>Blown fuse.</li> <li>Corroded battery terminals.</li> <li>Loose or damaged wiring.</li> <li>Faulty ignition switch.</li> <li>Faulty solenoid or starter.</li> <li>Faulty operator presence switch(es).</li> </ol>	<ol> <li>Depress clutch/brake pedal.</li> <li>Disengage attachment clutch.</li> <li>Recharge or replace battery.</li> <li>Replace fuse.</li> <li>Clean battery terminals.</li> <li>Check all wiring.</li> <li>Check/replace ignition switch.</li> <li>Check/replace solenoid or starter.</li> <li>Contact an authorized service center/department.</li> </ol>				
Engine clicks but will not start	<ol> <li>Weak or dead battery.</li> <li>Corroded battery terminals.</li> <li>Loose or damaged wiring.</li> <li>Faulty solenoid or starter.</li> </ol>	<ol> <li>Recharge or replace battery,</li> <li>Clean battery terminals.</li> <li>Check all wiring.</li> <li>Check/replace solenoid or starter.</li> </ol>				
Loss of power	<ol> <li>Cutting too much grass/too fast.</li> <li>Throttle in "CHOKE" position.</li> <li>Build-up of grass, leaves and trash under mower.</li> <li>Dirty air filter.</li> <li>Low oil level/dirty oil.</li> <li>Faulty spark plug.</li> <li>Dirty fuel filter.</li> <li>Stale or dirty fuel.</li> <li>Water in fuel.</li> <li>Dirty engine air screen/fins.</li> <li>Dirty/clogged muffler.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</li> <li>Engine valves out of adjustment.</li> </ol>	<ol> <li>Set in "Higher Cut" position/reduce speed.</li> <li>Adjust throttle control.</li> <li>Clean underside of mower housing.</li> <li>Clean/replace air filter.</li> <li>Check oil level/change oil.</li> <li>Clean and regap or change spark plug.</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and refill with fresh gasoline.</li> <li>Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> <li>Connect and tighten spark plug wire.</li> <li>Clean engine air screen/fins.</li> <li>Clean/replace muffler.</li> <li>Check all wiring.</li> <li>Contact an authorized service center/department.</li> <li>Contact an authorized service center/department.</li> </ol>				
Excessive vibration	<ol> <li>Worn, bent or loose blade.</li> <li>Bent blade mandrel.</li> <li>Loose/damaged part(s).</li> </ol>	Replace blade. Tighten blade bolt.     Replace blade mandrel.     Tighten loose part(s). Replace damaged parts.				

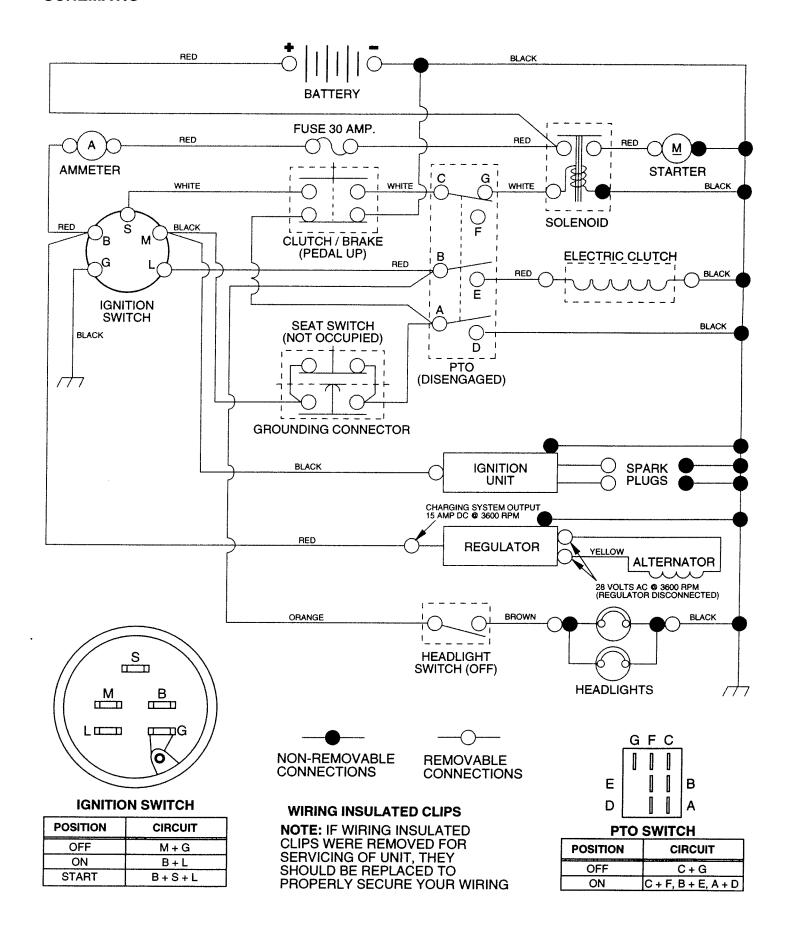
# **TROUBLESHOOTING POINTS**

PROBLEM	CAUSE	CORRECTION
Engine continues to run when operator leaves seat with attachment clutch engaged	Faulty operator-safety presence control system.	Check wiring, switches and connections. If not corrected, contact an authorized service center/department.
Poor cut - uneven	<ol> <li>Worn, bent or loose blade.</li> <li>Mower deck not level.</li> <li>Buildup of grass, leaves, and trash under mower.</li> <li>Bent blade mandrel.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol> <li>Replace blade. Tighten blade bolt.</li> <li>Level mower deck.</li> <li>Clean underside of mower housing.</li> <li>Replace blade mandrel.</li> <li>Clean around mandrels to open vent holes.</li> </ol>
Mower blades will not rotate	<ol> <li>Obstruction in clutch mechanism.</li> <li>Worn/damaged mower drive belt.</li> <li>Frozen idler pulley.</li> <li>Frozen blade mandrel.</li> </ol>	<ol> <li>Remove obstruction.</li> <li>Replace mower drive belt.</li> <li>Replace idler pulley.</li> <li>Replace blade mandrel.</li> </ol>
Poor grass discharge	<ol> <li>Engine speed too slow.</li> <li>Travel speed too fast.</li> <li>Wet grass.</li> <li>Mower deck not level.</li> <li>Low/uneven tire air pressure.</li> <li>Worn, bent or loose blade.</li> <li>Buildup of grass, leaves and trash under mower.</li> <li>Mower drive belt wom.</li> <li>Blades improperly installed.</li> <li>Improper blades used.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol> <li>Place throttle control in "FAST" position.</li> <li>Shift to slower speed.</li> <li>Allow grass to dry before mowing.</li> <li>Level mower deck.</li> <li>Check tires for proper air pressure.</li> <li>Replace/sharpen blade. "Ighten blade bolt.</li> <li>Clean underside of mower therapp.</li> <li>Replace mower drive belt.</li> <li>Reinstall blades sharp edge down.</li> <li>Replace with blades listed in this manual.</li> <li>Clean around mandrels to open vent holes.</li> </ol>
Headlight(s) not working (if so equipped)	<ol> <li>Switch is "OFF".</li> <li>Bulb(s) burned out.</li> <li>Faulty light switch.</li> <li>Loose or damaged wiring.</li> <li>Blown fuse.</li> </ol>	<ol> <li>Turn switch "ON".</li> <li>Replace bulb(s).</li> <li>Check/replace light switch.</li> <li>Check wiring and connections.</li> <li>Replace fuse.</li> </ol>
Battery will not charge	<ol> <li>Bad battery cell(s).</li> <li>Poor cable connections.</li> <li>Faulty regulator (if so equipped).</li> <li>Faulty alternator.</li> </ol>	<ol> <li>Replace battery.</li> <li>Check/clean all connections.</li> <li>Replace regulator.</li> <li>Replace alternator.</li> </ol>
Tractor "creeps" with motion control lever in "neutral" position (Fender shift models only)	Motion control lever is out of adjustment.	Adjust motion control lever.
Loss of drive	<ol> <li>Freewheel control in "disengaged" position.</li> <li>Motion drive belt worn, damaged, or broken.</li> <li>Air trapped in transmission during shipment or servicing.</li> </ol>	<ol> <li>Place freewheel control in "engaged" position.</li> <li>Replace motion drive belt.</li> <li>Purge transmission.</li> </ol>
Engine "backfires" when turning engine "OFF"	Engine throttle control not set at "SLOW" position for 30 seconds before stopping engine.	Move throttle control to "SLOW" position and allow to idle for 30 seconds before stopping engine.

# **SERVICE NOTES**

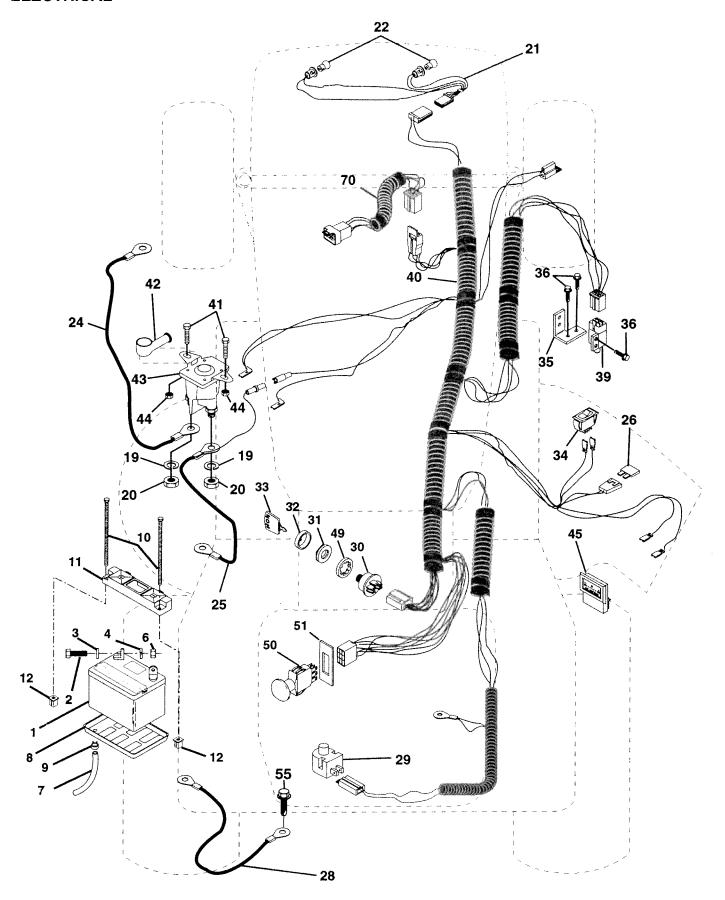
#### TRACTOR - - MODEL NUMBER 917.252710

#### **SCHEMATIC**



### **TRACTOR - - MODEL NUMBER 917.252710**

#### **ELECTRICAL**



# **TRACTOR - - MODEL NUMBER 917.252710**

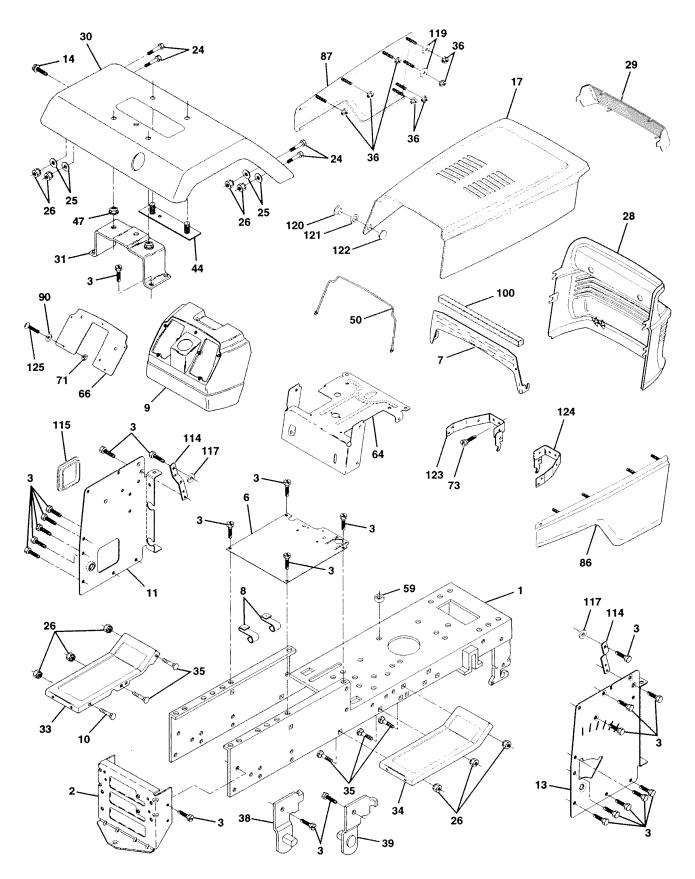
#### **ELECTRICAL**

KEY NO.	PART NO.	DESCRIPTION
28 29 30 31 32 33 34	136850 4152J 146148 4799J 108824X 145491 121305X 144921 140400 141226 140403 110712X 108236X STD601005 109553X 145490 71110412 131563 145673 73800400 122822X 11151000 146283 140405	Battery Bolt, Hex 1/4-20 UNC x 3/4 Washer Washer Nut Tube, Plastic Tray, Battery Clamp, Hose Bolt Holddown Battery Dash Mount Nut, Push Nylon 1/4 Washer, Lock Nut, Hex, Jam 1/4-20 UNC Harness, Light Socket W/4152J Bulb, Light Cable, Battery Cable Battery Fuse Cable, Ground Switch, Plunger Switch, Ignition Nut, Ignition Cover, Ignition Switch Key, Ignition Switch, Light Bracket, Switch Screw Switch, Interlock Harness, Ignition Bolt Blk Fin Hex 1/4-20 UNC x 3/4 Cover, Terminal Solenoid Nut, Lock W/Insert 1/4-20 UNC Ammeter Rectangular 15 Amp. Washer Lock Internal Tooth 5/8 Switch PTO 3 PDT Red Delta Ring Retainer PTO Screw Thdrol 5/16-18 x 1/2 TYT Harness Engine

**NOTE:** All component dimensions given in U.S. inches 1 inch = 25.4 mm

# **TRACTOR - - MODEL NUMBER 917.252710**

### **CHASSIS AND ENCLOSURES**



# **TRACTOR - - MODEL NUMBER 917.252710**

#### **CHASSIS AND ENCLOSURES**

KEY NO.		DESCRIPTION	KEY NO.		DESCRIPTION
1	145501	Chassis	44	140675	Fender Strap
2	140356	Drawbar	47	105531X	Nut, Push, Nylon
3	17490612	Screw, Thd., Roll. 3/8-16 x 3/4	50	137304	Rod, Support Hood
_		Type TT	59	110436X	Bushing, Snap, Split
6	145206	Saddle	64	145095	Dash, Lower
7	145351	Heat Shield	66	143485X014	Plate, Dash
8	126471X	Clip Insulator	69	140181	Plate, Support, Battery
9	145203	Dash, Plastic	71	73640400	Nut
10	72140608	Bolt, Carriage 3/8-16 x 1	73	17580408	Screw Tap Lite 1/4-20 x 1/2
11	145218	Panel, Dash, LH	75	108067X	Nut, Pal
13	145217	Panel, Dash, RH	86	136670X558	
14	17490608	Screw, Thd., Roll. 3/8-16 x 1/2	87	136671X558	Panel Assembly, LH
4-	4000701/750	Type TT	90	STD551025	Washer 17/64
17	136673X558	Hood Assembly	100	105037X	Strip Foam
24	STD523710	Bolt	114	145349	Bracket, Support, Dash
25	19131312	Washer 13/32 x 13/16 x 12 Gauge	115	121794X	Cover A ccess Black Square
26	STD541437	Nut	119	19092016	Washer 9/32 x 1-1/4 x 16 Ga.
28	136373X428	Grill		137270	Rivet, Rachet, Male
29	136374	Lens, Bar, Clear	121	137269	Washer, Nylon
30	140002X558			137271	Rivet, Ratchet, Female
31	137113	Bracket Assembly, Fender	123	136814	Bracket Assembly, Front Pivot
33	145244X558	Footrest, LH			Hinge, LH
34	145243X558	Footrest, RH	124	136813	Bracket Assembly, Front Pivot
35	STD533707	Bolt			Hinge, RH
36	108067X	Nut, Pal	125	74180412	Screw, Machine 1/4-20 x 3/4
38	139886	Bracket Assembly, Pivot, LH			
39	139887	Bracket Assembly, Pivot, RH	NOT	E: All compon 1 inch = 25	ent dimensions given in U.S. inches
				1 111011 = 20	· <del></del>

15 1

### **TRACTOR - - MODEL NUMBER 917.252710** DRIVE -18 - 88 92-36 35

84 100

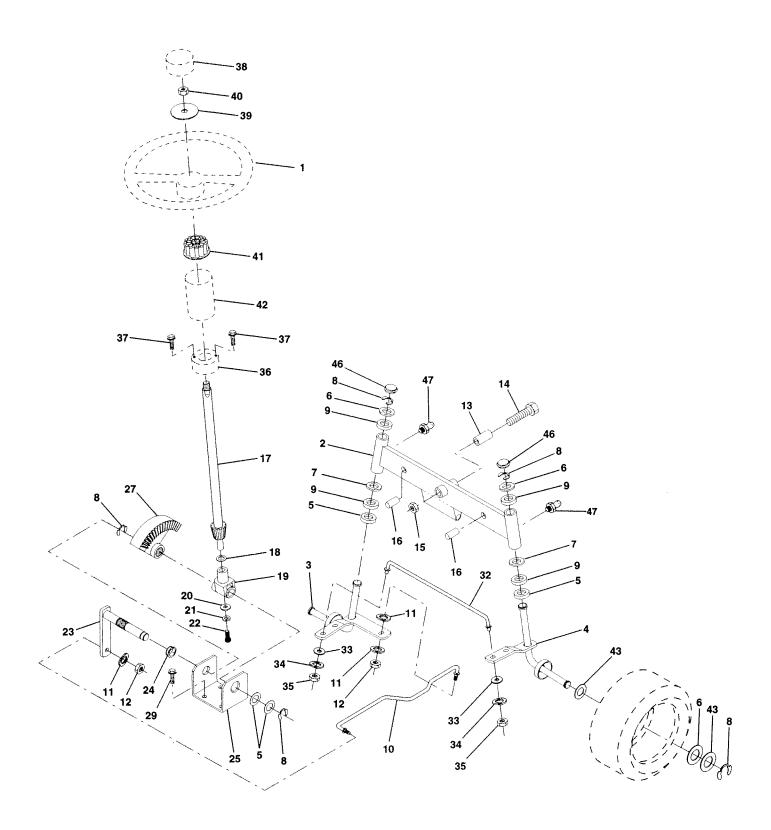
# **TRACTOR - - MODEL NUMBER 917.252710**

## **DRIVE**

KE NO		DESCRIPTION	KEY NO.		DESCRIPTION
1	144436	Transaxle Assembly	56	74760620	Bolt Hex 3/8-16 x 1-1/4
2	142431	Spring, Return, Brake	57	140294	V-Belt, Ground Drive
3	143995	Pulley, Transaxle	58	140470	Keeper Bolt Lh Hydro 0750. 18/20"
8	141002	Rod Śhift Hydro LT	59	140312	Keeper, Center Span
9	137140	Clutch Elect	60	121218X	Keeper Belt Engine
10	76020416	Pin Cotter 1/8 x 1 CAD	61	17490612	Screw Thdrol. 3/8-16 x 3/4 Ty. TT
15	74780544	Bolt Fin Hex 5/16-18 Unc	62	8883R	Cover, Pedal
16	73800500	Nut Lock Hex W/Ins. 5/16-18 Unc	63	<del>140186</del>	Pulley, Engine 140189
17	126197X	Washer 1-1/2 OD x 15/32 ID x .250	65	STD551143	Washer Lock Hvy HLCL Spr. 7/16
18	74780616	Bolt Fin Hex 3/8-16 Unc x 1 Gr. 5	67	STD523710	Bolt Fin Hex 3/8-16 x 1
19	73800600	Nut Lock Hex W/Wsh 3/8-16 Unc	68	105730X	Keeper Belt Engine
20	71170768	Bolt Hex 7/16-20 x 4-1/4 Ga. 5	69	142432	Screw
21	130564	Knob, Deluxe 1/2-13	71	140158	Strap Torque Lh Hydro 18/20" T
22	145240	Rod, Brake Hydro	72	19132012	Washer 13/32 x 1-1/4 x 12 Gauge
23	137141	Bracket Asm. Mtg CL	73	140157	Strap Torque Rh Hydro 18/20" Ť
25 26	106888X	Spring, Brake Rod	74	121199X	Spacer, Split
26 27	19131316	Washer	75 70	121749X	Washer 25/32 x 1-1/4 x 16 Gauge
28	76020412	Pin Cotter 1/8 x 3/4 CAD.	76	12000001	E-Ring
29	145204 124236X	Rod, Parking Brake	77 70		Key, Square
30	130807	Cap, Parking Brake	78	121748X	Washer 25/32 x 1-5/8 x 16 Gauge
31	127275X	Bracket, Transaxle Keeper Belt Lh	81 82	140154	Shaft Asm. Cross Hydro 20" Tires
32	74760512		83	123782X	Spring Torsion T/A
33	STD533107	Bolt Hex Hd 5/16-18 Unc x 3/4 Bolt RDHD SQNK 5/16-18 x 3/4		19171216 140548	Washer 17/32 x 3/4 x 16 Ga.
34	122424X	Shaft, Foot Pedal	86	71208	Rod, Tie Hydro 20" Tires
35	120183X	Bearing, Nylon	87	19212016	Bushing Rod Strig. 629/632 ID
36	19211616	Washer	88	12000008	Washer 21/32 x 1-1/4 x 16 Ga.
37	1572H	Pin, Roll	89	139989	Ring Klip #5304-62 Console, Shift
38	123674X	Pulley, Idler, Flat	91	74780536	Bolt Fin Hex 5/16-18 x 2-1/4
39	74760644	Bolt	92	74780524	Bolt Fin Hex 5/6-18 Unc x 1-1/2
40	4470J	Spacer, Split	93	142564	Line Fuel Hydro 4"
41	109070X	Keeper, Belt Retainer		140462	Fan, Hydro 7"
42	19131312	Washer 13/32 x 13/16 x 12 Gauge		144643	Control Bypass Hydro 20" Tires
43	19111012	Washer 11/32 x 5/8 x 12 Ga.		4497H	Retainer Spring 1" Zinc/Cad
44	105706X	Bearing, Nylon		140469	Keeper Bolt Rh Hydro 0750. 18/20"
45	110812X	Washer, Hardened		73510600	Nut Keps Hex 3/8-16 Unc
46	12000039	Ring, Klip		19111216	Washer 11/32 x 3/4 x 16 Ga.
47	127783	Pulley, Idler, V-Groove		141322	Washer Bellville .501D x 1.50D
48	123789X	Bellcrank Assembly		50831	Nut Nylon Insert 1/2-20 Unf.
49	123205X	Retainer, Belt	104	140156	Arm, Control Hydro
50	74760624	Bolt	105	71070516	Screw Cap Hex 5/16 x 18 x 1
51	STD 541437	Nut, Crownlock 3/8-16	106	74780520	Bolt Fin Hex 5/16-18 Unc x 1-1/4
52	73680500	Nut, Crownlock 5/16-18 Unc			
53	105710X	Link, Clutch	NOT:	- AU	
55	105709X	Spring, Return, Clutch	NOTE	∴ All compon 1 inch – 25	ent dimensions give in U.S. inches.

# **TRACTOR - - MODEL NUMBER 917.252710**

## STEERING ASSEMBLY



# **TRACTOR - - MODEL NUMBER 917.252710**

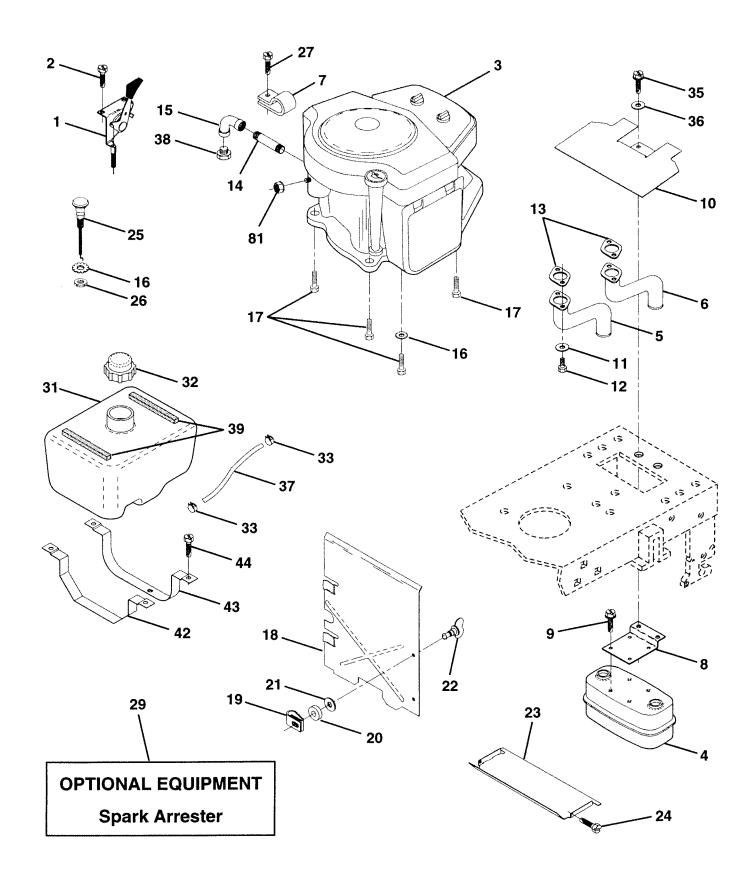
# STEERING ASSEMBLY

KE NO		DESCRIPTION
1 2 3 4	121472X 142033 135227 135228	Steering Wheel Axle Assembly, Front Spindle Assembly, LH Spindle Assembly, RH
5 6 7 8	6266H 121748X 19272016 12000029	Bearing, Race, Thrust, Hardened Washer 25/32 x 1-5/8 x 16 Gauge Washer 27/32 x 1-1/4 x 16 Gauge Ring, Klip
9 10 11 12	STD551137	Bearing Link, Drag Washer, Lock Nut, Hex, Fin. 3/8-24 UNF
13 14 15	110438X 74011056	Spacer, Bearing, Front Axle Bolt, Hex 5/8-11 UNC x 3-1/2 Locknut, Hex, Jam, w/Washer Insert 5/8-11 UNC
16 17 18 19	128758 57079	Pin, Axle, Large 5/8 x 1.55/1.54 Shaft Assembly, Steering Washer, Thrust .515 x .750 x .033
20 21 22	126684X STD551125	Support, Shaft Washer, Shim 1/4 x 5/8 x .062 Washer Screw, Hex Socket Head
23 24 25	109816X 124036X	1/4-20 x 5/8 Shaft Assembly, Pittman Nyliner, Snap-In Bracket, Steering
27 28 29	17490612	Gear, Sector Washer 13/32 x 7/8 x 16 Gauge Screw, Thd., Roll. 3/8-16 x 3/4 Type TT
32 33 34 35	130467 STD551031 STD551137 73810500	Tie Rod Washer 11/32 x 3/4 x 16 Ga. Washer Lock Hvy HLCL Spr. 5/16 Locknut 5/16-24 UNF
37 36 38 39	17541008 145207 126805X 100712K	Screw SLFTP #10-24 x 1/2 TT-B Bushing, Steering Insert, Cap, Steering Wheel Washer .53 x 2.25 x .160
40 41 42 43	STD541350 100711L 140216 121749X	Nut Adapter, Steering Wheel Boot Shaft Steering
45 46 47	106933X 121232X 6855M	Washer 25/32 x 1-1/4 x 16 Gauge Knob, Round Cap, Spindle Fitting, Grease131672

**NOTE:** All component dimensions given in U.S. inches 1 inch = 25.4 mm

# **TRACTOR - - MODEL NUMBER 917.252710**

## **ENGINE**



# **TRACTOR - - MODEL NUMBER 917.252710**

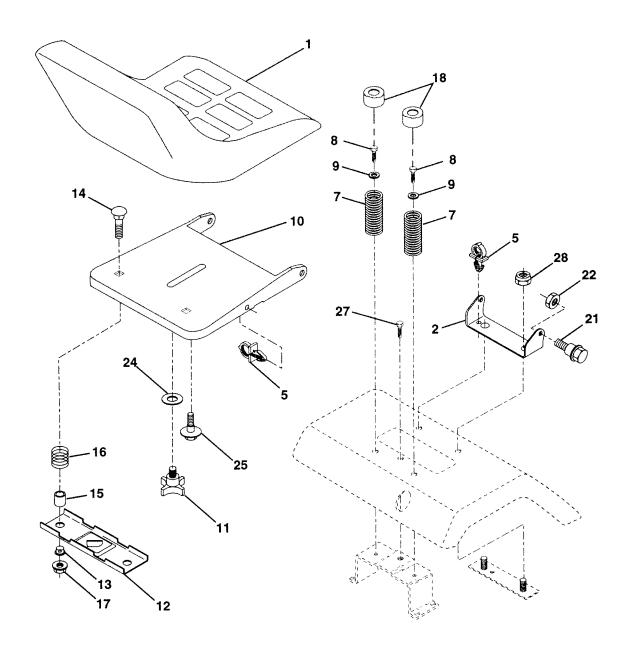
## **ENGINE**

KEY PART NO. NO.	DESCRIPTION
1 132755 2 17720410	Control, Throttle Screw, Hex Head, Thread Cutting
3 141948	1/4-20 x 5/8 Engine, Kohler, Model No. MV18.08, Type No. PS58560
4 137978 5 136215	Muffler, Exhaust Tube Manifold LH Kohler MV18
6 136216	Tube Manifold RH Kohler MV18
7 2751R 8 122439X	Clip Line Fuel
9 17190408	Bracket Muffler Mounting Screw Hex WHS Thdcut 1/4-20 UNC
10 145552	Shield Heat
11 STD551131 12 74570512	Washer Lock Hvy. Hlcl. Spr. 5/16
13	Screw Hex SKT 5/16 UNC x 3/4 Gasket (Order From Engine
	Manufacturer)
14 13280336 15 13200300	Nipple, Pipe Elbow, Standard 90°, 3/8-18 NPT
	Washer Lock Ext Tooth 3/8
17 17490624	Screw Thdrol 3/8-16 x 1-12 TT
23 128953 24 STD601005	Shield, Heat Screw
25 138672	Control Choke
26 STD551237	Nut Fin Hex 3/8-24 UNF
29 137180 31 141069	Arrester, Spark
32 123549X	Tank, Fuel Cap Assembly, Fuel
33 123487X	Clamp, Hose
34 106082X 35 17490512	Spacer, Pad
35 17490512 36 19132012	Screw Thdrol 5/16-18 x 3/4 TYT Washer 13/32 x 1-1/4 x 12 Ga.
37 8543R	Line, Fuel
38	Plug, Oil Drain
39 109227X	(Order From Engine Manufacturer) Spacer Pad
40 3645J	Bushing
41 139277	Stem, Fuel Tank
81 73510400	Nut Keps Hex 1/4-20 UNC

**NOTE:** All component dimensions given in U.S. inches 1 inch = 25.4 mm

# **TRACTOR - - MODEL NUMBER 917.252710**

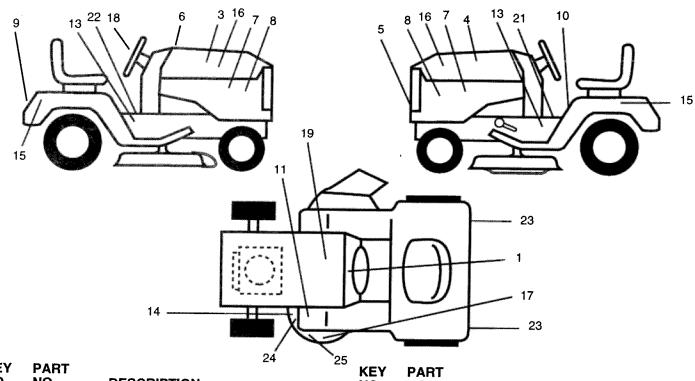
## **SEAT ASSEMBLY**



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 2 5 7 8 9 10 11 12 13 14 15	140123 140551 145006 124181X 17490508 19131614 140552 120068X 121246X 121248X 72050411 134300	Seat Bracket, Pivot, Seat Clip Push-In, Hinged Spring, Seat Screw Thdrol. 5/16-18 x 1/2 Washer 13/32 x 1 x 14 Gauge Pan, Seat Knob, Seat Bracket, Switch Mounting Bushing, Snap, Nylon Bolt, Carriage 1/4-20 x 1-3/8 Spacer, Split	16 18 17 21 22 24 25 27 28	121250X 124238X 123976X 139888 STD541431 19171912 127018X 17490608 STD541437 TE: All compon 1 inch = 25	Spring Cap, Spring, Seat Nut, Flangelock 1/4 Grade 5 Bolt, Shoulder 5/16-18 UNC Nut Washer 17/32 x 1-3/16 x 12 Gauge Bolt, Shoulder 5/16-18 x .62 Screw Thdrol. 3/8-16 x 1/2 Nut ent dimensions given in U.S. inches .4 mm

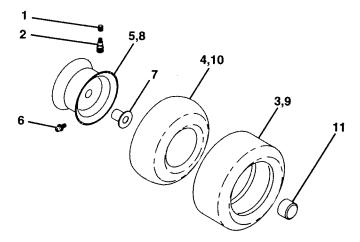
# **TRACTOR - - MODEL NUMBER 917.252710**

## **DECALS**



NO.	NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 3 4 5 6 7 8 9 10 11 13 14 15 16 17	138955 146705 146706 146708 133644 142243 138048 146709 137537 4900J 147138 146046 146712 147137 133179	Decal, Operating Instruction Decal, Hood, Craftsman, RH Decal, Hood, Craftsman, LH Decal, Grille Decal, Maintenance Decal, Side Panel Decal, Side Panel Decal, Fender, Craftsman Decal, Caution Decal, Clutch/Brake Decal, Chassis 42" Decal, V-Belt Schematic Decal, Fender Hydro Decal, Ins. Hood Decal, Mower QC System	18 19 21 22 23 24 25 	146710 138047 140837 142336 106202X 136832 147142 138311 142341 137318 137319 145245 145247 146823	Decal, Insert Strg Decal, Battery Decal Brake Parking Saddle Decal, Sdl Cold Start Hydro Eng. Reflector, Taillight Decal V-Belt SHC Decal Deck 3 in 1 Decal, Handle Lift Height Adj. Decal, Drawbar Cntrl Mvt. Hyd Lt Decal, Refl HL YT/GT 1-pc Sears Decal, Refl HL YT/GT 1-pc Sears Pad Ftrest Fastener Pop-In Footrest Manual, Owner's (Eng)
		= 5500, monor do Oyotem		146824	Manual, Owners (Span)

# **WHEELS & TIRES**

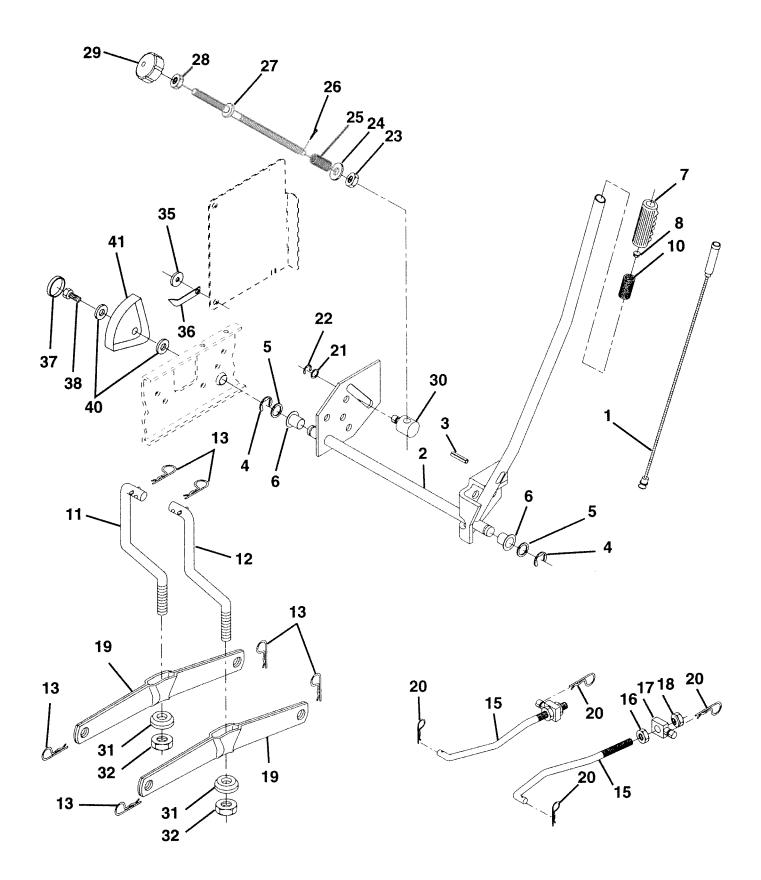


KEY NO.	PART NO.	DESCRIPTION
1	59192	Cap, Valve, Tire
2	65139	Stem, Valve
3	106222X	Tire, Front
4	59904	Tube, Front (Service Item Only)
5	106732X427	Rim Assembly, Front
6	278H	Fitting, Grease (Front Wheel Only)
7	9040H	Bearing, Flange (Front Wheel Only)
8	106108X427	Rim Assembly, Rear
9	122082X	Tire, Rear
10	7152J	Tube, Rear (Service Item Only)
11	104757X	Cap, Axle

**NOTE:** All component dimensions given in U.S. inches 1 inch = 25.4 mm

# **TRACTOR - - MODEL NUMBER 917.252710**

## **MOWER LIFT**



# **TRACTOR - - MODEL NUMBER 917.252710**

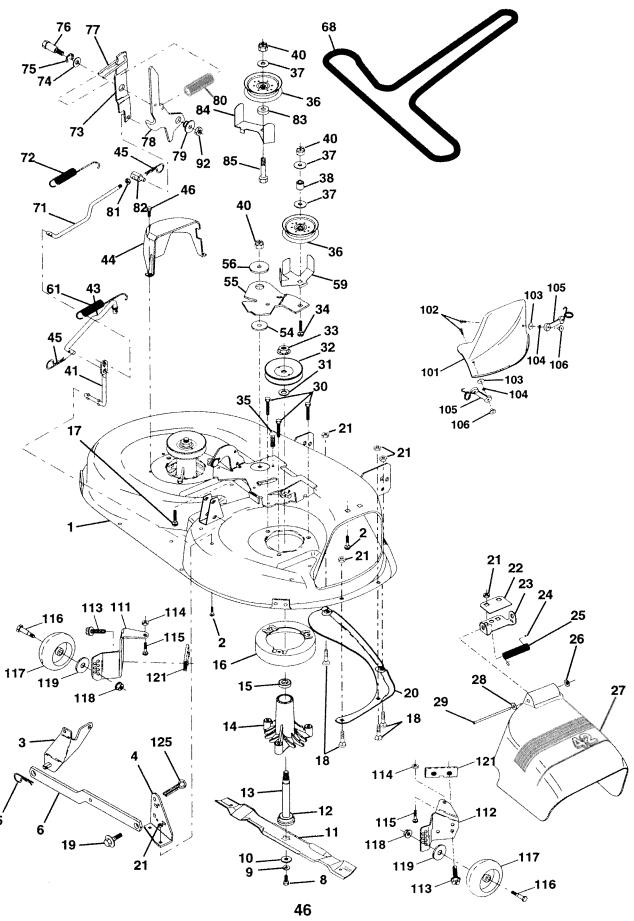
## **MOWER LIFT**

KE\ NO.		DESCRIPTION
13 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 35 36 37 38	127218 73350800 130171 73800800 139868 3146R 19151216 12000037 110807X 19131016 137150 76020308 137167 73350600 138057 110810X	Wire Asm., Inner w/plunger Shaft Asm Lift Pin Groove E Ring #5133-62 Washer 21/32 X 1 X 21 Ga Bearing Nylon Grip Handle Fluted Button, Plunger Spring Cprsn Link Lift Lh Fixed Length Link Lift Rh Fixed Length Retainer Spring Link Front Nut Jam Hex 1/2-13 Unc Trunnion Blk Zinc Nut Lock W/Wsh 1/2-13 Unc Arm Suspension Rear Spring Retainer Washer 15/32 X 3/4 X 16 Ga Ring Klip #T5304-37 Nut Special Washer 13/32 X 5/8 X 16 Ga Spring Pin Cotter 3/32 x 1/2 Rod Adjust Lift Nut Hex Jam 3/8-16 Unc Knob Infinite 3/8-16 Unc Knob Infinite 3/8-16 Unc Black Trunnion Dp Stop Dbl Thds Plt Bearing Pvt. Lift Spherical Nut Crownlock 3/8-24 Washer, Nylon .44 x .75 x .032 Pointer, Height Indicator Plug, Hole Scr-Hx Wash Thdrol 5/16-18 x 3/4 Tyt Washer 11/32 x 1-1/2 x 10 Gauge Scale, Height Indicator
		<del>-</del>

**NOTE:** All component dimensions given in U.S. inches 1 inch = 25.4 mm

# **TRACTOR - - MODEL NUMBER 917.252710**

## **MOWER DECK**

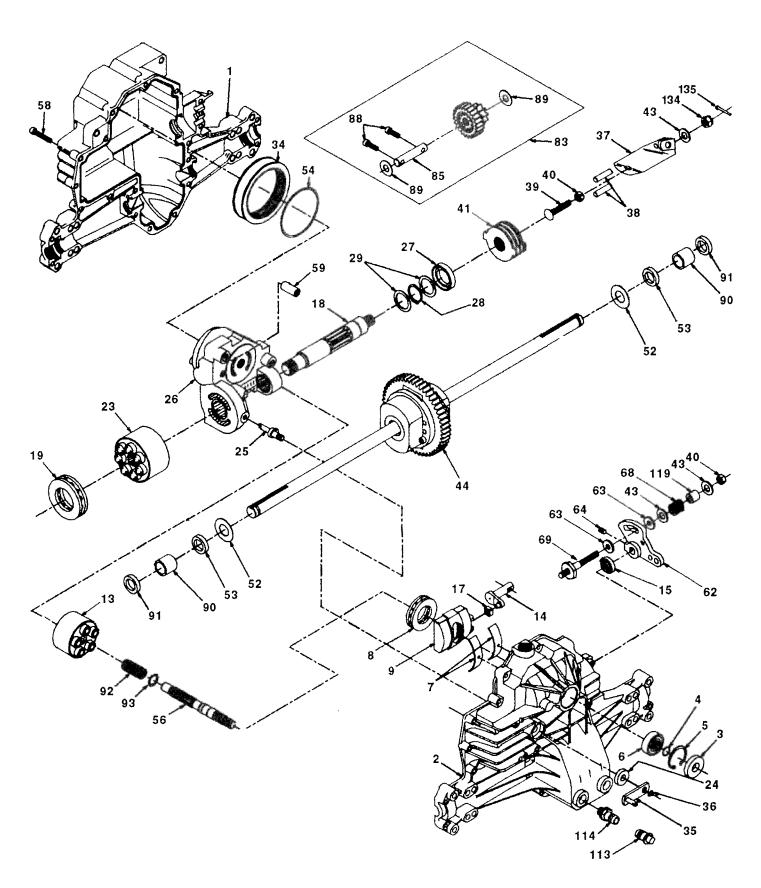


# **TRACTOR - - MODEL NUMBER 917.252710**

## **MOWER DECK**

KEY NO.		DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	144393	Mower Deck Assembly, 42*	38	72110618	Bolt RDHD SWNK 3/8-16 x 2-1/4
2	STD533107	Bolt	40	STD541437	Nut
3	138017	Bracket Asm Fr. Sway Bar	44	140088	Guard, Mandrel, LH
4	138440	Bracket Asm Deck 42" Sway Bar	46	137729	Screw Thd. Roll 1/4-20 x 5/8
5	STD624008	Retainer Spring	54	133943	Washer, Hardened
6	130832	Arm, Suspension, Rear	55	140084	Arm, Idler
8	850857	Bolt 3/8-24 x 1.25 Grade 8	56	122052X	Spacer, Retainer
9	STD551137	Washer, Lock	59	141043	Guard Tuv Idler
10	140296	Washer, Hardened	61	131950	Spring Ext. Electric CL
11	134149	Blade, Mulching, 42" Mower Deck	68	144200	V-Belt, 42" Mower
12	129895	Bearing, Ball	83	120958X	Washer Sintered
13	137645	Shaft Assembly, Mandrel, Vented		144394	Keeper, Belt Idler Fixed
		(Includes Key Number 12)		72140620	Bolt, Carriage 3/8-16 x 2-1/2 Gr. 5
14	128774	Housing, Mandrel, Vented		136420	Mulcher Cover
15	110485X	Bearing, Ball, Mandrel		71161010	Screw
16	140329	Stripper, Vented Mower Deck		19061216	Washer #10
17	132823	Spacer Spring Step Idler		STD551110	Washer, Lock
18	72140505	Bolt, Carriage 5/16-18 x 5/8		130758	Latch Assembly, Bagger
19	132827	Bolt, Shoulder		2029J	Nut, Weld
20 21	136888 STD541401	Baffle, Vortex		140353	Bracket, Gauge, Wheel LH
22	STD541431	Nut Stiffener Breeket		132262	Bracket, Gauge, Wheel RH
23	134753 131267	Stiffener Bracket		17490512	Screw Thdrol 5/16-18 x 3/4 Ty.T
24	105304X	Bracket, Deflector		73510500	Nut, Keps 5/16 - 18 UNC
25	123713X	Cap, Sleeve		72110504	Bolt, Carriage 5/16 UNC x 1/2
26	110452X	Spring, Torsion, Deflector Nut, Push		137644 133957	Bolt, Shoulder
27	130968	Shield, Deflector		73930600	Wheel, Gauge, Donut
28	19111016	Washer 11/32 x 5/8 x 16 Gauge		19121414	Nut, Locking 3/8 - 16 Washer 3/8 x 7/8 x 14 Ga.
29	131491	Rod, Hinge		143723	
30	138776	Screw Thdrol. Hex Head Zinc		76020816	Bracket Extruded Gauge Wheel Pin Cotter 1/4 x 1 Plated
00	100770	Mower		130794	Mandrel Assembly (Includes Key
31	129963	Washer, Spacer		150734	Numbers 8-10, 12-15, 31 and 33))
32	129861	Pulley, Mandrel	-	145452	Mower Deck, Complete (Std Deck -
33	137266	Nut, Toplock Flanged		170702	order mulching and gauge wheel
34	72110622	Bolt			components separately - key nos.
35	133835	Fastner, Christmas Tree			101 thru 106 and 111 thru 121)
	131494	Pulley, Idler, Flat			,
37	STD551037	Washer 13/32 x 13/16 x 16 Gauge	NOTE	E: All compone 1 inch = 25.	ent dimensions given in U.S. inches 4 mm

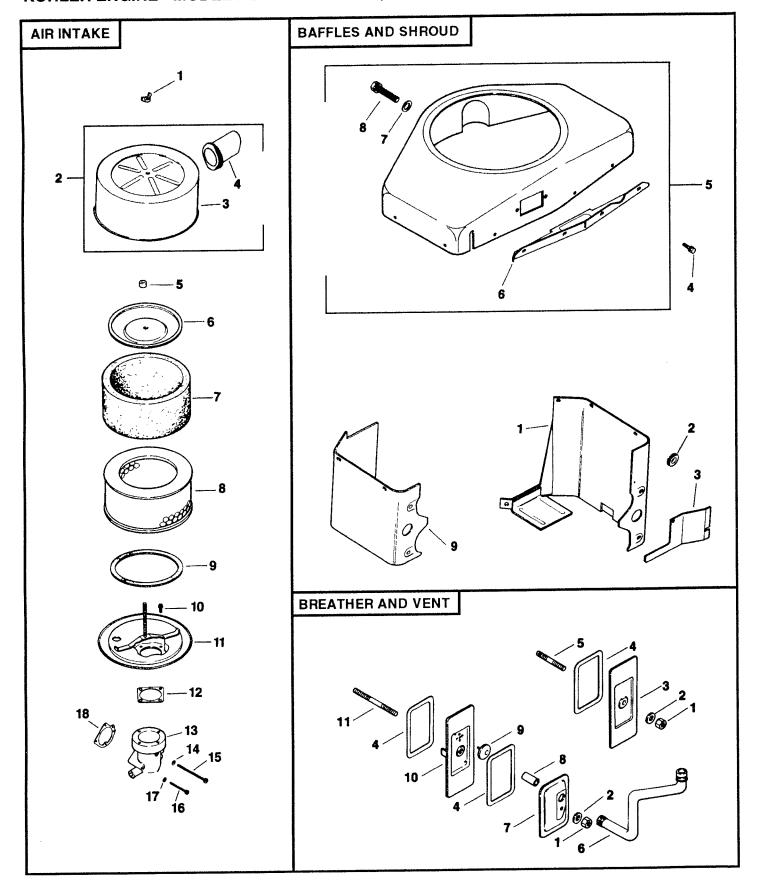
# TRACTOR - - MODEL NUMBER 917.252710 HYDRO GEAR TRANSAXLE - MODEL NUMBER 310-0750



# TRACTOR - - MODEL NUMBER 917.252710 HYDRO GEAR TRANSAXLE - MODEL NUMBER 310-0750

	PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
1	142930	Housing, Lower	43	142884	Washer 7/16 x 7/8 x .060
2	142931	Assembly, Upper Housing	44	142959	Differential Assembly
3	142932	Seal, Lip	52	142960	Washer 3/4 x 1.5 x .03
4	142928	Ring, Wire Retaining	53	142961	Seal .75 x 1.25 x .250
5	142933	Ring, Retaining	54	142962	O-Ring .103 x 2.987 ID
6	142934	Bearing, Shaft Ball	56	142963	Shaft, Input
7	142935	Bearing, Cradle	58	142964	Bolt 1/4-20 x 1.38
8	142936	Bearing, Thrust 30 x 52 x 13	59	142965	Pin .5 OD x .43 ID x .750
9	142937	Swashplate, Variable	62	142966	Arm, Control
13	142938	Block, Cylinder Assembly	63	142967	Puck, Dampener
14	142939	Arm, Trunnion	64	142920	Set Screw
15	142940	Seal, Lip	68	142969	Spring
17	142941	Guide, Slot	69	144610	Stud 5/16-24
18	142942	Shaft, Motor	83	142971	Jack Shaft Assembly
19	142943	Bearing, Thrust 42 x 68 x 16	85	142972	Jack Shaft
23	142944	Block, Cylinder Assembly	88	142973	Capscrew
24	142945	Seal, Lip 10 x 25 x 7	89	142974	Washer
	142946	Actuator, Bypass	90	142975	Sleeve Bearing
26	142947	Center Section Assembly Kit	91	142976	Seal, Wiper
27	142948	Seal, Lip 26 x 42 x 8		142977	Spring, Block
28	142949	Ring, Retaining		142978	Washer, Block Thrust
29	142950	Washer 26 x 35 x 1	113	142917	Cap, Vent Assembly
34	142951	Oil Filter Element	114	142918	Fitting, O-Ring Assembly
35	142952	Arm, Bypass	119	142980	Spacer
	142953	Ring, Retaining		144607	Nut, Castle 5/16-24
	142954	Arm, Actuating	135	144608	Pin, Cotter
	142955	Pin, Actuating			
	142956	Bolt 5/16-24 x 1-3/4			
	142957	Locknut, Hex 5/16-24 UNJC	NOTE	E: All compone	ent dimensions given in U.S. inches
41	142958	Brake Rotor/Stator Kit		1 inch = 25.4	4 mm

# TRACTOR - - MODEL NUMBER 917.252710 KOHLER ENGINE - MODEL NUMBER MV18.OS, TYPE NUMBER PS58560



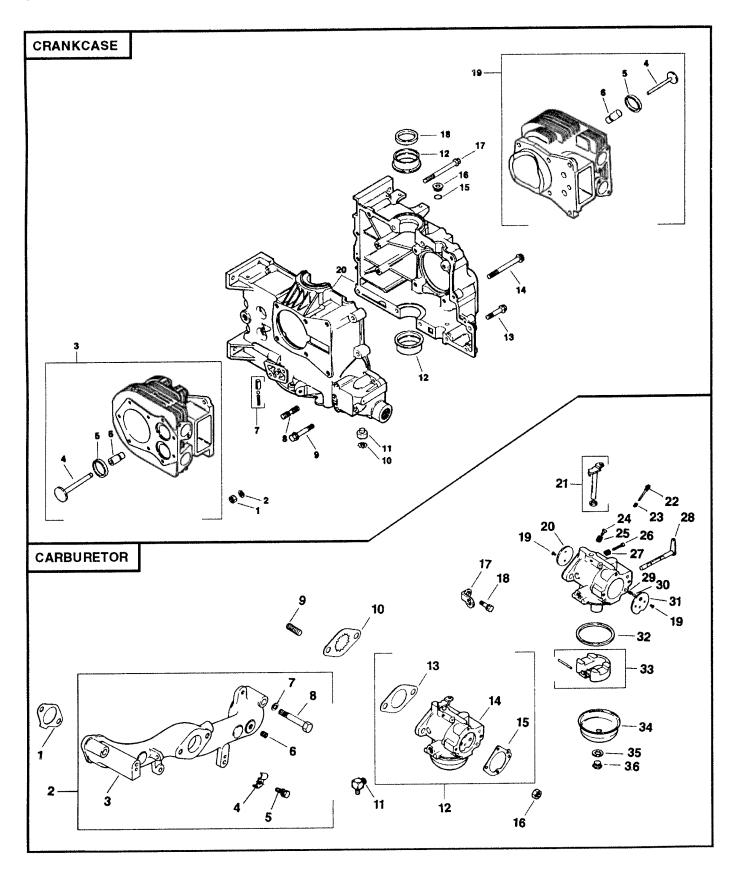
# **TRACTOR - - MODEL NUMBER 917.252710**

## **KOHLER ENGINE - MODEL NUMBER MV18.OS, TYPE NUMBER PS58560**

AIR I	NTAKE		7 8	52 468 16 52 086 11	Washer, Flat (2)
KEY NO.	PART NO.	DESCRIPTION	9	52 124 23	Screw 1/4-20 x 5/8 (6) Baffle, #1 Cylinder Head
			NOT	ILLUSTRATED	
1 2	X-276-7 52 755 83	Wing Nut 1/4-20 Kit, Cover and Tube (Includes Key Numbers 3 and 4)		52 113 46	Decal, Horsepower (3)
3 4	52 096 35 52 123 21	Cover, Air Cleaner Tube, Air Intake	BRE	ATHER & VENT	
5	231032	Seal, Element Cover	KEY	PART	DESCRIPTION
6	52 082 04	Cover, Air Cleaner Element	NO.	NO.	
7	45 083 01	Pre-Cleaner			
8	45 083 02	Element	1	X-81-1	Nut, Hex 1/4-20 (2)
9	237423	Seal, Air Cleaner Cover	2 3	X-25-12	Washer, Plain 1/4 (2)
10	X-67-98	Screw, Hex Washer Head	3	52 096 18	Cover, #2 Cylinder Valve
4.4	E0 004 00	#10-32 x 9/16 (4)	4	52 055 01	Gasket, Cover (3)
11	52 201 06	Base, Air Cleaner	5	X-352-39	Stud, #2 Cylinder Valve Cover
12	277093	Gasket, Air Cleaner (2)	_	== === ·==	1/4-20 x 2-1/4
13	52 054 39	Elbow, Air Intake	6	52 326 12	Hose, Breather
	X-25-79	Washer, Plain #10	7	52 096 08	Cover, #1 Upper Cylinder Valve
15	X-50-37	Screw, Slotted Pan Head	8	52 032 04	Seal, Breather
16	V 50 57	#10-32 x 2-1/4	9	52 462 01	Valve, Umbrella
16	X-50-57	Screw, Slotted Pan Head	10		Cover, #1 Lower Cylinder Valve
17	X-22-9	#10-32 x 1-3/4 (2)	11	275220	Stud, #1 Cylinder Valve Cover
17	X-22-9	Washer, Lock, Internal Tooth			1/4-20 x 3-1/4
18	25 041 06	#10 (2) Gasket, Air Cleaner Elbow	NOTE	E: All component 1 inch = 25.4 n	dimensions given in U.S. inches
NOT !	ILLUSTRATED			–	1011
	25 113 15	Decal, Air Cleaner			
	52 113 30	Decal			
BAFF	LES & SHROUL				

	PART NO.	DESCRIPTION
1	52 063 41	Baffle, #2 Cylinder Head
2 3	52 313 05	Grommet (2)
3	52 063 42	Baffle, Fuel Pump
4	X-67-83	Screw, Hex Washer Head
		1/4-20 x 7/16 (14)
5	52 755 70	Kit, Blower Housing
		(Includes Key Numbers 6 thru 8)
6	52 217 01	Support, Upper Housing

# TRACTOR - - MODEL NUMBER 917.252710 KOHLER ENGINE - MODEL NUMBER MV18.OS, TYPE NUMBER PS58560

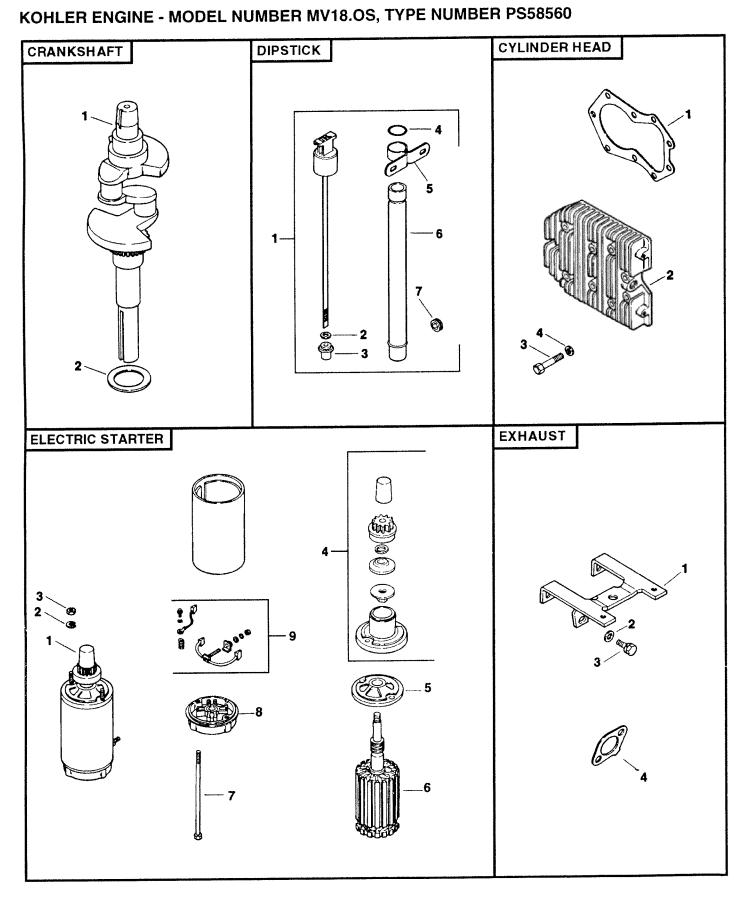


# **TRACTOR - - MODEL NUMBER 917.252710**

# **KOHLER ENGINE - MODEL NUMBER MV18.OS, TYPE NUMBER PS58560**

CRA	NKCASE		15	25 041 06	Gasket, Air Cleaner
	PART NO.	DESCRIPTION	16 17 18	X-77-2 232867 X-67-62	Nut 5/16 (2) Strap, Lifting Screw, Hex Washer Head 1/4-20 x 3/4
1 2 3	X-82-2 52 468 12 82 755 16	Nut, Hex 5/16-18 (12) Washer, Flat 5/16 (12) Kit, #1 Cylinder Barrel (Includes Kov Numbers 4 thrus 6)	19 20 21	25 086 27 25 146 03 52 144 24	Screw, Throttle and Choke Plate (4) Plate, Choke Shaft, Throttle with Lever and Seal
4 5 6 7 8	52 016 05 52 031 01 52 316 06 52 755 50 52 072 12	(Includes Key Numbers 4 thru 6) Valve, Exhaust Insert, Valve Seat (2) Guide, Valve (2) Kit, Oil Relief Step Stud 5/16-18 x 3/4, 3/8.16 x 5/8.2**Long (12)	22 23 24 25 26 27	25 368 01 25 089 02 25 086 26 25 089 04 25 368 03 25 089 02	Needle, Idle Fuel Adjust Spring, Idle, Fuel Screw, Idle Speed Adjust Spring, Idle Speed Needle, Main Fuel Spring, Main Fuel
9 10 11 12	25 086 12 X-269-43 52 078 05 52 030 10 52 030 11 52 030 12	3/8-16 x 5/8, 2" Long (12) Screw, Hex Flange 5/16-18 x 2 (2) Ring, Retaining Shaft, Governor Bearing, Sleeve, Standard (2) Bearing, Sleeve .010" (2) Bearing, Sleeve .020" (2)	28 29 30 31 32 33 34	52 090 13 25 089 03 25 194 01 25 146 02 25 041 04 25 757 09 25 104 01	Lever, Choke Spring, Choke, Friction Ball, Choke, Friction Plate, Throttle Gasket, Bowl Kit, Float Bowl, Fuel
13	25 086 10	Screw, Hex Flange 5/16-18 x 1-1/2 (3)	35 36	25 041 03 25 100 05	Gasket, Bowl Retainer Screw Screw, Bowl Retainer
14 15 16 17 18 19	25 086 13 52 141 02 52 139 08 25 086 11 52 032 10 82 755 17	Screw, Hex Flange 3/8-16 x 3-5/8 (2) O-Ring Plug Screw, Hex Flange 5/16-18 x 3-1/2 (8) Seal, Oil, Front Kit, #2 Cylinder Barrel (Includes Key Numbers 4 thru 6)		ILLUSTRATED 25 757 11 25 757 23 E: All component 1 inch = 25.4 r	Kit, Carburetor Repair Kit, Bowl Baffle t dimensions given in U.S. inches mm
20 CAD	PURETOR	Crankcase (Service with Short Block, Part Number 82 522 30)			
	BURETOR PART	DESCRIPTION			
NO.		DESCRIPTION			
1 2	52 041 09 52 755 91	Gasket, Intake (2) Kit, Manifold (Includes Key Numbers 3 thru 9)	RPM	Settings:	Low Speed 1500 - 2000 High Speed 3200 - 3400
3 4 5 6	52 164 15 X-21-1 X-6-29 X-75-23	(Includes Key Numbers 3 thru 8) Manifold, Intake Washer, Lock 5/16 (4) Screw, Hex Cap 5/16-18 x 2 (4) Plug, Hex, Countersunk			
7 8	235778 X-67-97	1/8 N.P.T.F. Clamp, Cable (2) Screw, Hex Washer Head			
11	41 072 19 52 063 40 25 155 02 52 853 25	#10-24 x 3/8 (2) Stud 5/16-18 x 1 (2) Baffle, Carburetor Connector, Hose Kit, Carburetor with Gasket (Includes			
13 14		Key Numbers 12 thru 14) Gasket, Carburetor (2) Carburetor Assembly (Information Only - Not Available Separately) (Includes Key Numbers 18 thru 35)			

# TRACTOR - - MODEL NUMBER 917.252710



## **TRACTOR - - MODEL NUMBER 917.252710**

## KOHLER ENGINE - MODEL NUMBER MV18.OS, TYPE NUMBER PS58560

3 52 086 11 4 52 041 14

NOTE: All component dimensions given in U.S. inches 1 inch = 25.4 mm

Screw 1/4-20 x 5/8 (3) Gasket, Exhaust (2)

KEY NO.	PART NO.	DESCRIPTION
1	52 014 93	Crankshaft
2	52 468 03	Washer, Thrust .119/.122 (A.R.)
	52 468 04	Washer, Thrust .128/.131 ` '
	52 468 05	Washer, Thrust .137/.140 (A.R.)

## DIPSTICK

KEY NO.	PART NO.	DESCRIPTION
1	52 038 14	Dipstick Assembly (Includes Key Numbers 2 and 3)
2	X-25-44	Washer, Plain 5/16
3	52 032 14	Seal, Rubber
	41 153 01	O-Ring
5	52 126 11	Bracket, Oil Tube Support
6	52 123 20	Tube, Oil Fill 11-7/8
7	47 139 01	Plug, Hex, Countersunk 3/4 N.P.T.F.

## CYLINDER HEAD

NO.	NO.	DESCRIPTION		
1 2 3 4	52 041 20 52 015 08 220534 41 086 02	Gasket, Head (2) Cylinder Head (2) Washer, Plain 5/16 (18) Screw, Hex Head 5/16-18 x 1-1/2 (18)		

## **ELECTRIC STARTER**

	PART NO.	DESCRIPTION
1	52 098 12	Starter Assembly (Includes Key Numbers 4 thru 9)
2	X-20-1	Washer, Lock 1/4 (2)
3	X-20-1 X-81-1 82 755 26 52 081 07	Nut, Hex 1/4-20 (2)
4	82 755 26	Kit, Drive
5	52 081 07	Cap, Drive End
6	52 170 05 52 211 01	Armature
7	52 211 01	Bolt, Thru (2)
	52 227 10	Cap, Commutator End
9	82 755 28	Kit, Brush
NOT	ILLUSTRATED	
	25 450 03	Tag, Caution

## **EXHAUST**

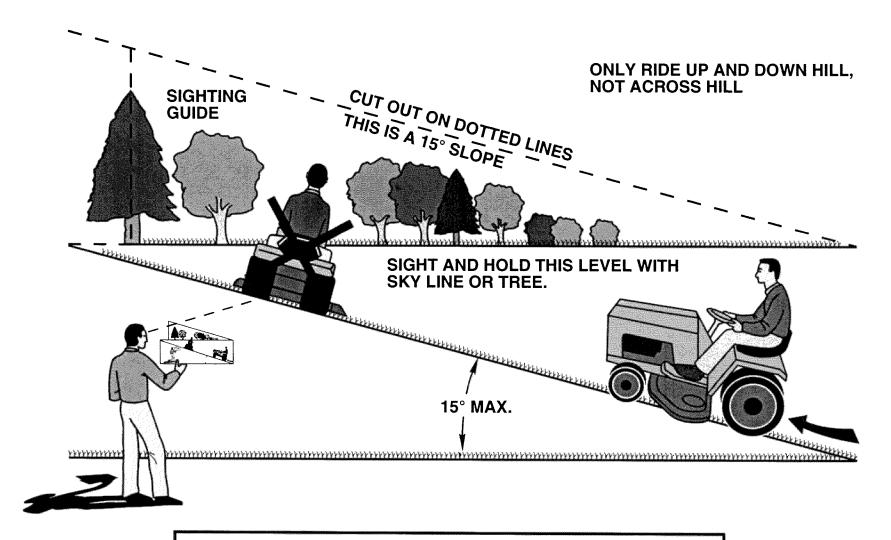
KEY NO.	PART NO.	DESCRIPTION
-	52 126 12 X-25-72	Bracket Washer, Plain (3)

# **SERVICE NOTES**

# **SERVICE NOTES**

# **SERVICE NOTES**

# SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION





Operate your Tractor up and down the face of slopes (not greater than 15°), never across the face. Make turns gradually to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.

# SEAIRS

# OWNER'S MANUAL

MODEL NO. 917.252710

## IF YOU NEED REPAIR SERVICE OR PARTS:

FOR REPAIR SERVICE, CALL THIS TOLL FREE NUMBER:

1-800-4-REPAIR (1-800-473-7247)

FOR REPLACEMENT PARTS INFORMATION AND ORDERING, CALL THIS TOLL FREE NUMBER:

1-800-FON-PART (1-800-366-7278)

# CRAFTSMAN®

# 18 HP TWIN CYLINDER ELECTRIC START 3 in One Convertible 42" MOWER AUTOMATIC (HYDROSTATIC) DRIVE LAWN TRACTOR

Each tractor has its own model number. Each engine has its own model number.

The model number for your tractor will be found on the model plate located under the seat.

The model number for your engine will be found on the blower housing of the engine.

All parts listed herein may be ordered from any Sears, Roebuck and Co. Service Center/Department and most Retail Stores.

# WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:

- PRODUCT TRACTOR
- MODEL NUMBER 917.252710
- ENGINE MODEL NO. MV18S-58560
- PART NUMBER
- PART DESCRIPTION

Your Sears merchandise has added value when you consider Sears has service units nationwide staffed with Sears trained technicians... professional technicians specifically trained to insure that we meet our pledge to you, we service what we sell.

146823 11.03.94

Printed in U.S.A.

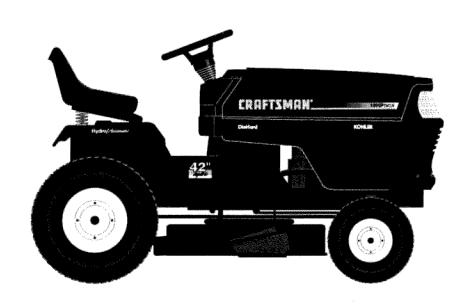
SEARS

# 

MODEL NUMBER 917.252710 OWNER'S MANUAL

- Assembly
- Operation
- Customer Responsibilities
- Service and Adjustments
- Repair Parts





CAUTION: Read and follow all safety rules and instructions before operating this equipment.



# SAFETY RULES

## Safe Operation Practices for Ride-On Mowers



**IMPORTANT:** THIS CUTTING MACHINE IS CAPABLE OF AMPUTATING HANDS AND FEET AND THROWING OBJECTS. FAILURE TO OBSERVE THE FOLLOWING SAFETY INSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH.

## I. GENERAL OPERATION

- Read, understand, and follow all instructions in the manual and on the machine before starting.
- Only allow responsible adults, who are familiar with the instructions, to operate the machine.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blade.
- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
- Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Be aware of the mower discharge direction and do not point it at anyone. Do not operate the mower without either the entire grass catcher or the guard in place.
- · Slow down before turning.
- Never leave a running machine unattended. Always turn off blades, set parking brake, stop engine, and remove keys before dismounting.
- · Turn off blades when not mowing.
- Stop engine before removing grass catcher or unclogging chute.
- Mow only in daylight or good artificial light.
- Do not operate the machine while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Use extra care when loading or unloading the machine into a trailer or truck.

## **II. SLOPE OPERATION**

Slopes are a major factor related to loss-of-control and tipover accidents, which can result in severe injury or death. All slopes require extra caution. If you cannot back up the slope or if you feel uneasy on it, do not mow it.

## DO:

- Mow up and down slopes, not across.
- Remove obstacles such as rocks, tree limbs, etc.
- Watch for holes, ruts, or bumps. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- Use slow speed. Choose a low gear so that you will not have to stop or shift while on the slope.
- Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability.
- Use extra care with grass catchers or other attachments.
   These can change the stability of the machine.
- Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction.
- Avoid starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly straight down the slope.

## DO NOT:

- Do not turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.
- Do not mow near drop-offs, ditches, or embankments. The mower could suddenly turn over if a wheel is over the edge of a cliff or ditch, or if an edge caves in.
- Do not mow on wet grass. Reduced traction could cause sliding.
- Do not try to stabilize the machine by putting your foot on the ground.
- · Do not use grass catcher on steep slopes.

## III. CHILDREN

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. *Never* assume that children will remain where you last saw them.

- Keep children out of the mowing area and under the watchful care of another responsible adult.
- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and down for small children.
- Never carry children. They may fall off and be seriously injured or interfere with safe machine operation.
- Never allow children to operate the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

## IV. SERVICE

- Use extra care in handling gasoline and other fuels. They are flammable and vapors are explosive.
  - Use only an approved container.
  - Never remove gas cap or add fuel with the engine running. Allow engine to cool before refueling. Do not smoke.
  - Never refuel the machine indoors.
  - Never store the machine or fuel container inside where there is an open flame, such as a water heater.
- Never run a machine inside a closed area.
- Keep nuts and bolts, especially blade attachment bolts, tight and keep equipment in good condition.
- Never tamper with safety devices. Check their proper operation regularly.
- Keep machine free of grass, leaves, or other debris build-up. Clean oil or fuel spillage. Allow machine to cool before storing.
- Stop and inspect the equipment if you strike an object. Repair, if necessary, before restarting.
- Never make adjustments or repairs with the engine running.
- Grass catcher components are subject to wear, damage, and deterioration, which could expose moving parts or allow objects to be thrown. Frequently check components and replace with manufacturer's recommended parts, when necessary
- Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves, and use extra caution when servicing them.
- Check brake operation frequently. Adjust and service as required.



Look for this symbol to point out important safety precautions. It means CAUTION!!! BECOME ALERT!!! YOUR SAFETY IS INVOLVED.



CAUTION: Always disconnect spark plug wire and place wire where it cannot contact spark plug in order to prevent accidental starting when setting up, transporting, adjusting or making repairs.

**CONGRATULATIONS** on your purchase of a Sears tractor. It has been designed, engineered and manufactured to give you the best possible dependability and performance.

Should you experience any problem you cannot easily remedy, please contact your nearest Sears Service Center/Department. We have competent, well-trained technicians and the proper tools to service or repair this tractor.

Please read and retain this manual. The instructions will enable you to assemble and maintain your tractor properly. Always observe the "SAFETY RULES".

MODEL NUMBER	917.252710
SERIAL NUMBER	
DATEOFPU	RCHASE
	AND SERIAL NUMBERS WILL BE FOUND E UNDER THE SEAT.
YOUSHOUL	D RECORD BOTH SERIAL NUMBER AND

## MAINTENANCE AGREEMENT

FOR FUTURE REFERENCE.

A Sears maintenance agreement is available on this product. Contact your nearest Sears store for details.

DATE OF PURCHASE AND KEEP IN A SAFE PLACE

## **CUSTOMER RESPONSIBILITIES**

- · Read and observe the safety rules.
- Follow a regular schedule in maintaining, caring for and using your tractor.
- Follow the instructions under "Customer Responsibilities" and "Storage" sections of this owner's manual.

## PRODUCT SPECIFICATIONS

HORSEPOWER:	18.0
GASOLINE CAPACITY AND TYPE:	3.5 GALLONS UNLEADED REGULAR
OIL TYPE (API-SF/SG):	SAE 10W-30 (above 32°F) SAE 5W-30 (below 32°F)
OIL CAPACITY:	W/ FILTER: 4.5 PINTS W/O FILTER: 4.0 PINTS
SPARK PLUG: (GAP: .030")	CHAMPION RV17YC
VALVE CLEARANCE:	INTAKE: .003"006" EXHAUST: .013"016"
GROUND SPEED (MPH):	FORWARD: 5.62 REVERSE: 2.4
TIRE PRESSURE:	FRONT: 14 PSI REAR: 10 PSI
CHARGING SYSTEM:	15 AMPS @3600RPM
BLADE BOLT TORQUE:	30-35 FT. LBS.

**WARNING:** This tractor is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the state of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest Sears Authorized Service Center (See REPAIR PARTS section of this manual).

## LIMITED TWO YEAR WARRANTY ON ELECTRIC START RIDING EQUIPMENT

For two (2) years from the date of purchase, if this riding equipment is maintained, lubricated and tuned up according to the instructions in the owner's manual, Sears will repair or replace, free of charge, any parts found to be defective in material or workmanship.

This Warranty does not cover:

- · Expendable items which become worn during normal use, such as blades, spark plugs, air cleaners and belts.
- · Tire replacement or repair caused by punctures from outside objects, such as nails, thorns, stumps, or glass.
- Repairs necessary because of operator abuse, negligence, improper storage or accident or the failure to maintain the
  equipment according to the instructions contained in the owner's manual.
- · Riding equipment used for commercial or rental purposes.

## **LIMITED 90 DAY WARRANTY ON BATTERY**

For ninety (90) days from date of purchase, if any battery included with this riding equipment proves defective in material or workmanship and our testing determines the battery will not hold a charge, Sears will replace the battery at no charge.

WARRANTY SERVICE IS AVAILABLE BY RETURNING THE RIDING EQUIPMENT TO THE NEAREST SEARS SERVICE CENTER/DEPARTMENT IN THE UNITED STATES.

This Warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

SEARS, ROEBUCK AND CO., D/817 WA, HOFFMAN ESTATES, ILLINOIS 60179

# **TABLE OF CONTENTS**

SAFETY RULES	2	MAINTENANCE	SCHEDULE	16
PRODUCT SPECIFICATIONS	3	SERVICE AND	ADJUSTMENTS	20-26
<b>CUSTOMER RESPONSIBILITIES</b>	3. 16-19	STORAGE		27
WARRANTY	3	TROUBLESHOO	TING	28-29
TRACTOR ACCESSORIES	5	REPAIR PARTS	- TRACTOR	32-47
ASSEMBLY	7-10		- ENGINE	
OPERATION			NG/SERVICE E	
		· Airio onderi	in the second se	DAOR COVER
INDEX				
A	E		0	
Accessories 5	Electrical:		Oil:	
Adjustments:		ays 25	Cold Weather Conditi	ions 12,18
Brake22		31	Engine	18
Carburetor		32	Storage	
Mower	Engine:	4.0	Operation	
Front-To-Back		19	Operating Mower	13
Side-To-Side		18	Options:	
Throttle Control Cable	Oil Change	19	Accessories	5
Air Filter, Engine19	Oil Change	18 18	Spark Arrester	
Air Screen, Engine18	Oil Type	13,18	•	
Assembly7-10	Preparation		P	
•		50-55	Parking Brake	11-12
В	Starting	14		
Battery:	Storage	27	Parts Bag	
Charging 8	3		Parts, Replacement/Repai	
Cleaning 17	F		Product Specifications	3
Installation 9	Filter:			
Levels		19	R	
Preparation 8			Repair Parts	32-47
Starting with Weak Battery 24	Fuel:			
Storage 27		14	S	
Terminals 17	Storage		_	0
Belt:	Fuse		Safety Rules	
Motion Drive	ruse	20	Seat	
Removal/Replacement 23	u		Service and Adjustments	
Mower Belt(s)	Н		Carburetor	
Removal/Replacement 22	Hood Removal/Installa	tion 25	Fuse	
Blade:	_		Hood Removal/Installa	ation 25
Sharpening17	L		Motion Drive Belt	ant 00
Replacement 17	Leveling Mower Deck	21	Removal/Replacen	nent 23
Brake Adjustment22	Lubrication:		Mower Belt(s) Removal/Replacen	nent 22
	Chart	16	Mower Adjustment	10111
С	Engine		Front-to-Back	21
Carburetor Adjustment26	g		Side-to-Side	21
	М		Mower Removal/Instal	
Controls, Tractor	Maintenance Schedule	10	Tire Care	
Customer Responsibilities 16-19		10	Slope Guide Sheet	
Engine:	Mower:			
Air Filter19	Adjustment, Front-		Spark Plug(s)	
Air Screen	Adjustment, Side-to	o-Side 21	Specifications	3
Cooling Fins	Blade Replacemen	t1/	Starting the Engine	14
Engine Oil 13,18 Fuel Filter 19	Blade Sharpening	17	Steering Wheel	7,24
Spark Plug(s)19	Cutting Height Installation	12	Stopping the Tractor	
Tractor:	Operation	13	Storage	
Battery 17	Removal	20	Otorage	
Blade 17	Mowing Tips		<b>T</b>	
Lubrication Chart 16			Thomas	,
Maintenance Schedule 16	Muffler		Throttle Control Cable Adju	
Tire Care 8,17,27	Spark Arrester	3,40	Tires	
Transaxle 18			Trouble Shooting Chart	28-29
Cutting Height, Mower 12			Transaxle	
			W	
			Warranty	3
			Wiring Diagram	
	<u>-</u>			
	4		Wiring Schematic	31

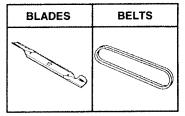
# **ACCESSORIES AND ATTACHMENTS**

These accessories and attachments were available through most Sears retail outlets and service centers when the tractor was purchased. Most Sears stores can order these items for you when you provide the model number of your tractor.

## **ENGINE**

SPARK PLUG	GAS CAN	ENGINE OIL	FUEL STABILIZER	AIR FILTER

## **MAINTENANCE**



## **PERFORMANCE**

Sears offers a wide variety of attachments that fit your tractor. Many of these are listed below with brief explanations of how they can help you. This list was current at the time of publication; however, it may change in future years - more attachments may be added, changes may be made in these attachments, or some may no longer be available or fit your model. Contact your nearest Sears store for the accessories and attachments that are available for your tractor.

Most of these attachments do not require additional hitches or conversion kits (those that do are indicated) and are designed for easy attaching and detaching.

**AERATOR** promotes deep root growth for a healthy lawn. Tapered 2.5-inch steel spikes mounted on 10-inch diameter discs puncture holes in soil at close intervals to let moisture soak in. Steel weight tray for increased penetration.

BUMPER protects front end of tractor from damage.

**CARTS** make hauling easy. Variety of sizes available, plus accessories such as side panel kits, tool caddy, cart cover, protective mat and dolly.

**CORING AERATOR** takes small plugs out of soil to allow moisture and nutrients to reach grass roots. 36-inch swath. 24 hardened steel coring tips. 150 lb. capacity weight tray.

EASY OIL DRAIN VALVE makes oil changes easier, faster.

**FRONT NOSE ROLLER** canters in front of mower deck to reduce chances of "scalping" on uneven terrain.

**GANG HITCH** lets you tow 2 or 3 pull-behind attachments at once, such as sweepers, dethatchers, aerators (not for use with rollers, carts or other heavy attachments).

**GAUGE WHEELS** on both sides of the mower deck reduce chances of "scalping" on uneven terrain. For mower decks not so equipped.

MULCH RAKE/DETHATCHER loosens soil and flips thatch and matted leaves to lawn surface for easy pickup. Twenty spring tine teeth. Useful to prepare bare areas for seeding. Available for front or rear mounting. HIGH PERFORMANCE REEL-ACTION SPRING TINE DETHATCHER covers 36-inch wide path and tosses thatch into large hopper. Mounts behind tractor.

**MULCHING KIT**, once installed, lets you mulch, discharge or bag clippings (bagger optional) without changing blades. For models not equipped as 3-in-1 Convertible mowers.

**RAMP TOPS AND FEET** let you load and unload tractor from a pickup truck. Use with 2 x 8 or 2 x 10 lumber.

**ROLLER** for smoother lawn surface. 36-inch wide, 18-inch diameter water-tight drum holds up to 390 lbs. of weight. Rounded edges prevent harm to turf. Adjustable scraper automatically cleans drum.

**SLEEVE HITCH** for use with master lift system. Single pin couples/uncouples.

**SNOW BLADE** for snow removal only. 14-inch high, 48-inch wide blade clears 42-inch path when angled left or right. Raises, lowers with side lever. Adjustable skids; replaceable, reversible scraper bar. (Use with tire chains and wheel weights and/or rear drawbar weight.)

**SNOWTHROWER** has 40-inch swath. Drum-type auger handles powdery and wet/heavy snow. Mounts easily with simple pin arrangement. Discharge chute adjusts from tractor seat. 6-inch diameter spout discharges snow 10 to 50 feet. Lift controlled at tractor seat. (Use with chains and wheel weights and/or rear drawbar weight.)

**SPRAYERS** use 12-volt DC electric motor that connects to the tractor battery or other 12-volt source. Includes booms for automatic spraying and hand held wand for spot spraying. Wand has adjustable spray pattern. For applying herbicides, insecticides, fungicides and liquid fertilizers.

**SPREADER/SEEDERS** make seeding, fertilizing, and weed killing easy. Broadcast spreaders are also useful for granular deicers and sand.

SWEEPERS let you collect grass clippings and leaves.

TILLER has 8 hp engine to prepare seed beds, cultivate, and compost garden residue. Chain-drive transmission. Six 11-inch diameter one piece heat-treated steel tines. Tills 30-inch path. (Requires sleeve hitch.) Or use 5 hp tow-behind TILLER with 36-inch swath to prepare seed beds, cultivate and compost garden residue. Tiller has its own built-in lift and depth control system and does NOT require a sleeve hitch. Fits any lawn, yard or garden tractor. Simply hook up to the tractor drawbar and go! Optional accessories for 5 hp tiller convert unit for dethatching, aerating, hilling...without tools.

TIRE CHAINS are heavy duty; closely spaced extra-large cross links give smooth ride, outstanding traction.

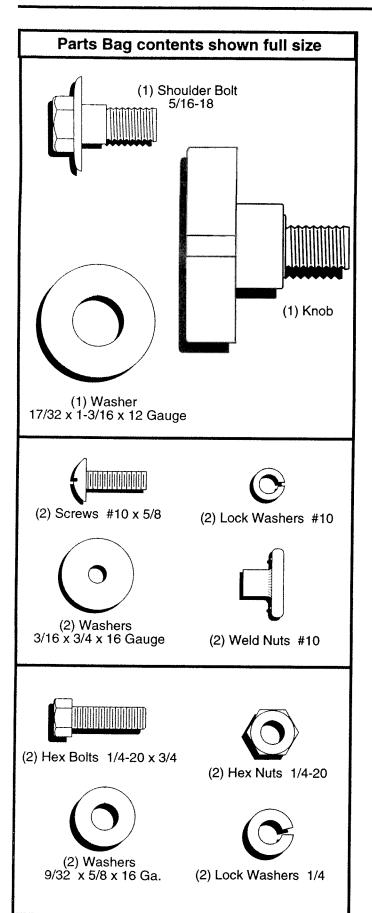
TRACTOR CAB has heavy duty vinyl fabric over tubular steel frame, ABS plastic top; clear plastic windshield offers 360 degree visibility. Hinged metal doors with catch. Keeps operator warm and dry. Remove vinyl sides and windshields for use as sun protector in summer. Optional accessories include: tinted/tempered solid safety glass windshield with hand operated wiper; 12-volt amber caution light for mounting on cab top.

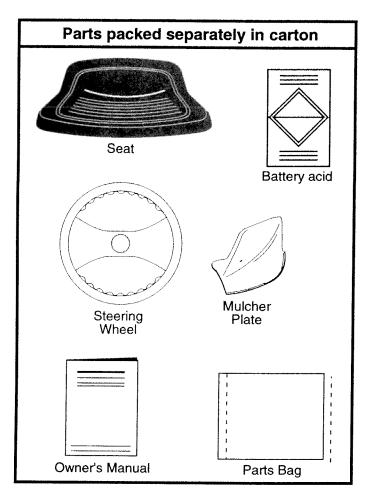
VACS for powerful collection of heavy grass clippings and leaves. Optional wand attachment to pick up debris in hard-to-reach places. VAC/CHIPPER includes a chipper-shredder.

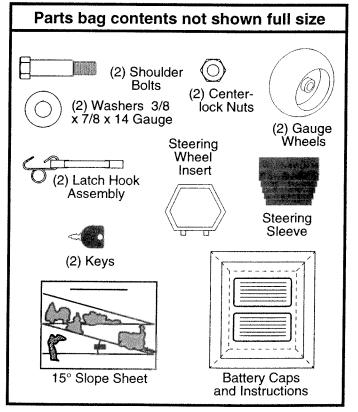
**WEIGHT BRACKET** for drawbar for snow removal applications. Uses (1) 55 lb. weight.

WHEEL WEIGHTS for rear wheels provide needed traction for snow removal or dozing heavy materials.

# **CONTENTS OF HARDWARE PACK**







Your new tractor has been assembled at the factory with exception of those parts left unassembled for shipping purposes. To ensure safe and proper operation of your tractor, all parts and hardware you assemble must be tightened securely. Use the correct tools as necessary to insure proper tightness.

## TOOLS REQUIRED FOR ASSEMBLY

A socket wrench set will make assembly easier. Standard wrench sizes are listed.

- (1) 9/16" wrench
- (2) 7/16" wrench
- (1) 1/2" wrench
- (1) 3/4" socket w/drive ratchet
- Utility knife
  Tire pressure gauge
- (1) Phillips Screwdriver

When right and left hand is mentioned in this manual, it means when you are in the operating position (seated behind the steering wheel).

## TO REMOVE TRACTOR FROM CARTON

## UNPACK CARTON

- Remove all accessible loose parts and parts cartons from carton (See page 6).
- Cut, from top to bottom, along lines on all four corners of carton, and lay panels flat.
- Check for any additional loose parts or cartons and remove.

## **BEFORE ROLLING TRACTOR OFF SKID**

## ATTACH STEERING WHEEL (See Fig. 1)

- Remove locknut and large flat washer from steering shaft.
- Position front wheels of the tractor so they are pointing straight forward.
- Slide the steering sleeve over the steering shaft.
- Position steering wheel so cross bars are horizontal (left to right) and slide onto adapter.
- Secure steering wheel to steering shaft with locknut and large flat washer previously removed. Tighten securely.
- Snap steering wheel insert into center of steering wheel.
- Remove protective plastic from tractor hood and grill.

**IMPORTANT:** CHECK FOR AND REMOVE ANY STAPLES IN SKID THAT MAY PUNCTURE TIRES WHERE TRACTOR IS TO ROLL OFF SKID.

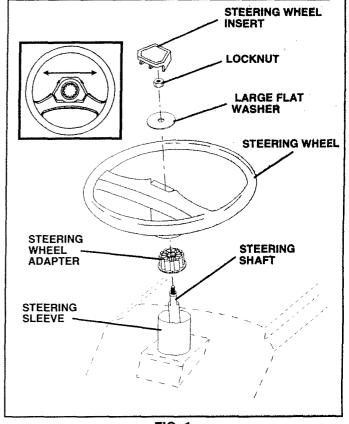


FIG. 1

## TO ROLL TRACTOR OFF SKID (See Fig. 8)

- Raise attachment lift lever to its highest position.
- Release parking brake by depressing clutch/brake pedal.
- Place freewheel control in freewheeling position to disengage transmission (See "TO TRANSPORT" in Operation section of this manual).
- Roll tractor backwards off skid.
- Remove banding holding discharge guard up against tractor.

## **HOW TO SET UP YOUR TRACTOR**

## PREPARE BATTERY (See Figs. 2A and 2B)



CAUTION: Wear eye and face shield.

Wash hands or clothing immediately if accidentally in contact with battery acid.

Do not smoke. Fumes from charged battery acid are explosive.

Read the instructions included with the battery vent caps. Always wear gloves, clothing and goggles to protect your hands, skin and eyes.

Your tractor has a battery charging system which is sufficient for normal use. However, periodic charging of the battery with an automotive charger will extend its life.

- See instructions packed with vent caps in parts bag.
- Lift hood to raised position.
- Remove battery from tractor to fill with acid and charge.
   To remove battery, remove terminal guard and battery bolts securing battery to tractor.
- Fill battery with acid. Fill each cell until it reaches the bottom of the vent wells. Do not overfill.
- Allow battery to stand and settle for at least thirty minutes. After standing, check the battery cell acid level. If below the vent wells, add more acid until the correct level is reached.

While battery is standing (after adding acid) and later, while battery is being charged, continue with assembly of tractor.

**IMPORTANT:** TO MAXIMIZE THE LIFE OF YOUR BATTERY, IT IS NECESSARY THAT THE BATTERY BE CHARGED BEFORE USE. FAILURE TO CHARGE BATTERY CAN RESULT IN A SHORTENED BATTERY LIFE.

- Charge battery at a rate of 6 amperes for 1 hour. Use a 12 volt battery charger. Observe all safety precautions required for battery charging.
- Check the acid level after the battery is charged. If the acid has fallen below the correct level, add distilled or iron free water.
- Install the vent caps to cover the vent wells. Wash the top of the battery with water to remove any acid, then wipe dry.
- Check battery case for leakage to make sure that no damage has occurred in handling.
- Dispose of excess battery acid. Neutralize acid for disposal by adding it to two gallons of water in a five gallon plastic container. Stir with a wooden or plastic paddle while adding baking soda until the addition of more soda causes no more foaming.
- Follow instructions on how to install battery.

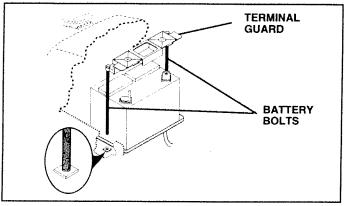


FIG. 2A

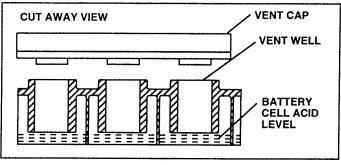


FIG. 2B

## **INSTALL SEAT (See Fig. 3)**

Adjust seat before tightening adjustment knob.

- Remove cardboard packing on seat pan.
- Place seat on seat pan and assemble shoulder bolt.
- Assemble adjustment knob and flat washer loosely. Do not tighten.
- Tighten shoulder bolt securely.
- Lower seat into operating position and sit on seat.
- Slide seat until a comfortable position is reached which allows you to press clutch/brake pedal all the way down.
- Get off seat without moving its adjusted position.
- Raise seat and tighten adjustment knob securely.

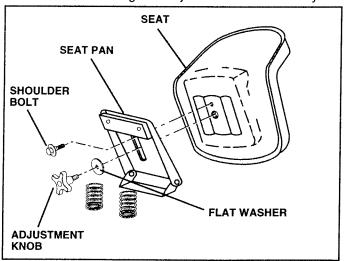


FIG. 3

## **CHECK TIRE PRESSURE**

The tires on your tractor were overinflated at the factory for shipping purposes. Correct tire pressure is important for best cutting performance.

 Reduce tire pressure to PSI shown in "PRODUCT SPECIFICATIONS" on page 3 of this manual.

## **CHECK DECK LEVELNESS**

For best cutting results, mower housing should be properly leveled. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.

# CHECK FOR PROPER POSITION OF ALL BELTS

See the figures that are shown for replacing motion and mower blade drive belts in the Service and Adjustments section of this manual. Verify that the belts are routed correctly.

## **CHECK BRAKE SYSTEM**

After you learn how to operate your tractor, check to see that the brake is properly adjusted. See "TO ADJUST BRAKE" in the Service and Adjustments section of this manual.

## **INSTALL BATTERY (See Figs. 4 and 5)**



CAUTION: Do not short battery terminals. Before installing battery, remove metal bracelets, wristwatch bands, rings, etc.

Positive terminal must be connected first to prevent sparking from accidental grounding.

- Lift hood to raised position.
- Be sure battery drain tube has not come loose and is securely attached to drain in battery tray.
- Lower battery into battery tray with terminals to front of tractor.
- Position terminal guard over battery and install battery bolts through guard mounting holes and into threaded fasteners on support plate.
- Tighten battery bolts securely, but do not over tighten.
- Open terminal access doors.
- First connect RED battery cable to positive (+) battery terminal with hex bolt, flat washer, lock washer and hex nut as shown. Tighten securely.
- Connect BLACK grounding cable to negative (-) battery terminal with remaining hex bolt, flat washer, lock washer and hex nut. Tighten securely.
- · Close terminal access doors.

Use terminal access doors for:

- Inspection for secure connections (to tighten hardware).
- Inspection for corrosion.
- Testing battery.
- Jumping (if required).
- Periodic charging.

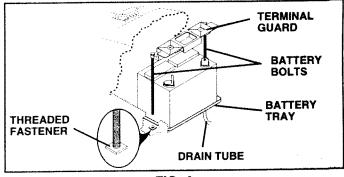


FIG. 4

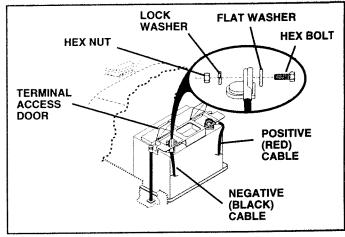


FIG. 5

# ASSEMBLE GAUGE WHEELS TO MOWER DECK (See Fig. 6)

Assemble gauge wheels with tractor on a flat level surface.

- Adjust mower to desired cutting height (See "TO AD-JUST MOWER CUTTING HEIGHT" in the Operation section of this manual).
- With mower in desired height of cut position, gauge wheels should be assembled so they are slightly off the ground. Install gauge wheel in appropriate hole with shoulder bolt, 3/8 washer, and 3/8-16 locknut and tighten securely.
- Repeat for opposite side installing gauge wheel in same adjustment hole.

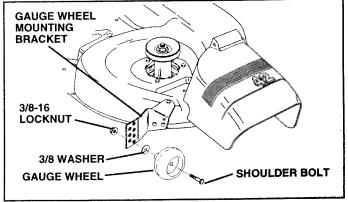


FIG. 6

# INSTALL MULCHER PLATE (See Figs. 7A & 7B)

 Install two latch hooks to mulcher plate using screw, washer, lock washer, and weld nut as shown.

**NOTE:** Pre-assemble weld nut to latch hook by inserting weld nut from the top with hook pointing down.

- Tighten hardware securely.
- Raise and hold deflector shield in upright position.
- Place front of mulcher plate over front of mower deck opening and slide into place, as shown.
- Hook front latch into hole on front of mower deck.
- Hook rear latch into hole on back of mower deck.



CAUTION: Do not remove discharge guard from mower. Raise and hold guard when attaching mulcher plate and allow it to rest on plate while in operation.

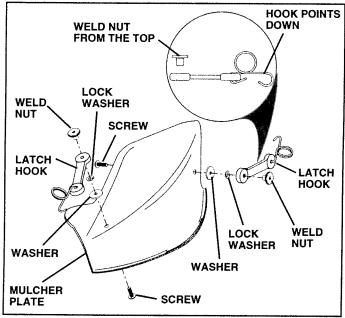


FIG. 7A

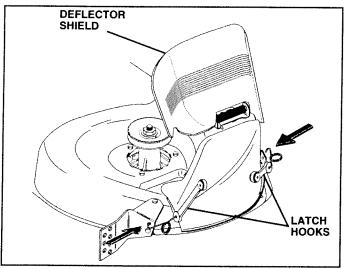


FIG. 7B

# TO CONVERT TO BAGGING OR DISCHARGING

Simply remove mulcher plate and store in a safe place. Your mower is now ready for discharging or installation of optional grass catcher accessory.

## ✓ CHECKLIST

BEFORE YOU OPERATE AND ENJOY YOUR NEW TRACTOR, WE WISH TO ASSURE THAT YOU RECEIVE THE BEST PERFORMANCE AND SATISFACTION FROM THIS QUALITY PRODUCT.

PLEASE REVIEW THE FOLLOWING CHECKLIST:

- ✓ All assembly instructions have been completed.
- ✓ No remaining loose parts in carton.
- ✓ Battery is properly prepared and charged. (Minimum 1 hour at 6 amps).
- Seat is adjusted comfortably and tightened securely.
- ✓ All tires are properly inflated. (For shipping purposes, the tires were overinflated at the factory).
- Be sure mower deck is properly leveled side-to-side/ front-to-rear for best cutting results. (Tires must be properly inflated for leveling).
- Check mower and drive belts. Be sure they are routed properly around pulleys and inside all belt keepers.
- ✓ Check wiring. See that all connections are still secure and wires are properly clamped.
- Before driving tractor, be sure freewheel control is in drive position.

WHILE LEARNING HOW TO USE YOUR TRACTOR, PAY EXTRA ATTENTION TO THE FOLLOWING IMPORTANT ITEMS:

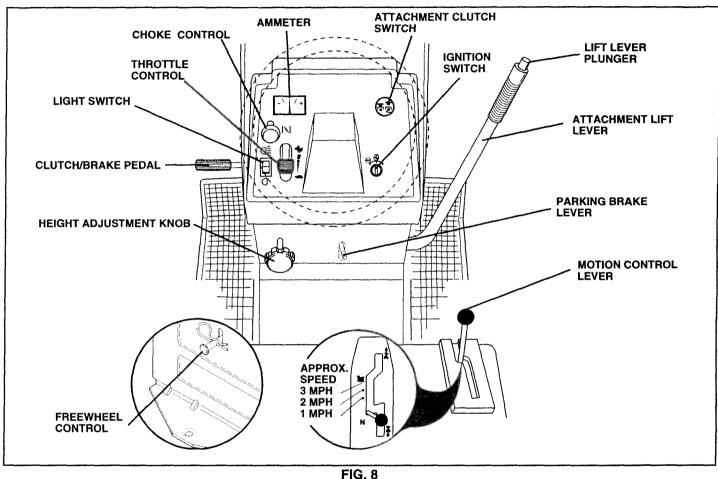
- Engine oil is at proper level.
- ✓ Fuel tank is filled with fresh, clean, regular unleaded gasoline.
- Become familiar with all controls their location and function. Operate them before you start the engine.
- Be sure brake system is in safe operating condition.
- ✓ It is important to purge the transmission before you operate your new tractor for the first time. Follow proper starting and transmission purging instructions (See "TO START ENGINE" and "PURGE TRANSMIS-SION" in Operation section of this manual).

# **OPERATION**

## **KNOW YOUR TRACTOR**

## READ THIS OWNER'S MANUAL AND SAFETY RULES BEFORE OPERATING YOUR TRACTOR

Compare the illustrations with your tractor to familiarize yourself with the locations of various controls and adjustments. Save this manual for future reference.



rig. o

Our tractors conform to the safety standards of the American National Standards Institute.

**ATTACHMENT CLUTCH SWITCH**: Used to engage the mower blades, or other attachments mounted to your tractor.

LIGHT SWITCH: Turns the headlights on and off.

**THROTTLE CONTROL**: Used to control engine speed. **CHOKE CONTROL**: Used when starting a cold engine.

**CLUTCH/BRAKE PEDAL**: Used for declutching and braking the tractor and starting the engine.

**PARKING BRAKE LEVER**: Locks clutch/brake pedal into the brake position.

**AMMETER**: Indicates charging (+) or discharging (-) of battery.

**HEIGHT ADJUSTMENT KNOB**: Used to release attachment lift lever when changing its position.

**MOTION CONTROL LEVER:** Selects the speed and direction of tractor.

**LIFT LEVER PLUNGER**: Used to release attachment lift lever when changing its position.

**ATTACHMENT LIFT LEVER**: Used to raise and lower the mower deck or other attachments mounted to your tractor.

**IGNITION SWITCH**: Used for starting and stopping the engine.

**FREEWHEEL CONTROL:** Disengages transmission for pushing or slowly towing the tractor with the engine off.

# **OPERATION**



The operation of any tractor can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields while operating your tractor or performing any adjustments or repairs. We recommend a wide vision safety mask over the spectacles or standard safety glasses.

## HOW TO USE YOUR TRACTOR TO SET PARKING BRAKE (See Fig. 9)

Your tractor is equipped with an operator presence sensing switch. When engine is running, any attempt by the operator to leave the seat without first setting the parking brake will shut off the engine.

- Depress clutch/brake pedal into full "BRAKE" position and hold.
- Place parking brake lever in "ENGAGED" position and release pressure from clutch/brake pedal. Pedal should remain in "BRAKE" position. Make sure parking brake will hold vehicle secure.

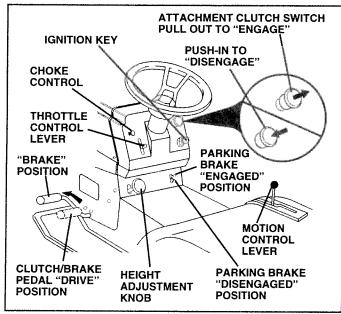


FIG. 9

## STOPPING (See Fig. 9)

**MOWER BLADES -**

 Move attachment clutch switch to "DISENGAGED" position.

**GROUND DRIVE -**

- Depress clutch/brake pedal into full "BRAKE" position.
- Move motion control lever to neutral (N) position.

IMPORTANT: THE MOTION CONTROL LEVER DOES NOT RETURN TO NEUTRAL (N) POSITION WHEN THE CLUTCH/BRAKE PEDAL IS DEPRESSED. ENGINE -

Move throttle control to slow (\*\*) position.

**NOTE:** Failure to move throttle control to slow () position and allowing engine to idle before stopping may cause engine to "backfire".

- Turn ignition key to "OFF" position and remove key. Always remove key when leaving tractor to prevent unauthorized use.
- Never use choke to stop engine.

**NOTE:** Under certain conditions when tractor is standing idle with the engine running, hot engine exhaust gases may cause "browning" of grass. To eliminate this possibility, always stop engine when stopping tractor on grass areas.



CAUTION: Always stop tractor completely, as described above, before leaving the operator's position; to empty grass catcher, etc.

## TO USE THROTTLE CONTROL (See Fig. 9)

Always operate engine at full throttle.

- Operating engine at less than full throttle reduces the battery charging rate.
- Full throttle offers the best bagging and mower performance.

## TO USE CHOKE CONTROL (See Fig. 9)

Use choke control whenever you are starting a cold engine. Do not use to start a warm engine.

 To engage choke control, pull knob out. Slowly push knob in to disengage.

# TO MOVE FORWARD AND BACKWARD (See Fig. 9)

The direction and speed of movement is controlled by the motion control lever.

- Start tractor with motion control lever in neutral (N) position.
- Release parking brake and clutch/brake pedal.
- · Slowly move motion control lever to desired position.

# TO ADJUST MOWER CUTTING HEIGHT (See Fig. 9)

The cutting height is controlled by turning the height adjustment knob in desired direction.

- Turn knob clockwise ( ) to raise cutting height.
- Turn knob counterclockwise () to lower cutting height.

The cutting height range is approximately 1-1/2" to 4". The heights are measured from the ground to the blade tip with the engine not running. These heights are approximate and may vary depending upon soil conditions, height of grass and types of grass being mowed.

- The average lawn should be cut to approximately 2-1/2 inches during the cool season and to over 3 inches during hot months. For healthier and better looking lawns, mow often and after moderate growth.
- For best cutting performance, grass over 6 inches in height should be mowed twice. Make the first cut relatively high; the second to desired height.

# **OPERATION**

## TO OPERATE MOWER (See Fig. 10)

Your tractor is equipped with an operator presence sensing switch. Any attempt by the operator to leave the seat with the engine running and the attachment clutch engaged will shut off the engine.

- Select desired height of cut.
- · Lower mower with attachment lift control.
- Start mower blades by engaging attachment clutch control.
- TO STOP MOWER BLADES disengage attachment clutch control.



CAUTION: Do not operate the mower without either the entire grass catcher, on mowers so equipped, or the discharge guard in place.

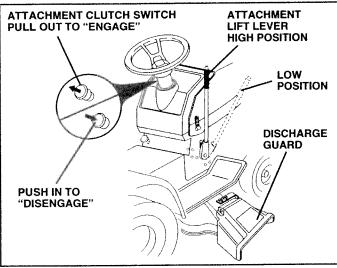


FIG. 10

#### TO OPERATE ON HILLS



CAUTION: Do not drive up or down hills with slopes greater than 15° and do not drive across any slope.

- Choose the slowest speed before starting up or down hills
- Avoid stopping or changing speed on hills.
- If slowing is necessary, move throttle control lever to slower position.
- If stopping is absolutely necessary, push clutch/brake pedal quickly to brake position and engage parking brake.
- Move motion control lever to neutral (N) position.

IMPORTANT: THE MOTION CONTROL LEVER DOES NOT RETURN TO NEUTRAL (N) POSITION WHEN THE CLUTCH/BRAKE PEDAL IS DEPRESSED.

 To restart movement, slowly release parking brake and clutch/brake pedal.

- Slowly move motion control lever to slowest setting.
- Make all turns slowly.

### TO TRANSPORT (See Figs. 8 and 11)

When pushing or towing your tractor, be sure to disengage transmission by placing freewheel control in freewheeling position. Free wheel control is located at the rear drawbar of tractor.

- Raise attachment lift to highest position with attachment lift control.
- Pull freewheel control knob out and hold in position by inserting retainer spring into forward hole of control rod.
- Do not push or tow tractor at more than two (2) MPH.
- To reengage transmission, reverse above procedure.

**NOTE**: To protect hood from damage when transporting your tractor on a truck or a trailer, be sure hood is closed and secured to tractor. Use an appropriate means of tying hood to tractor (rope, cord, etc.).

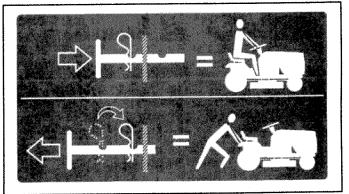


FIG. 11

## BEFORE STARTING THE ENGINE

## CHECK ENGINE OIL LEVEL (See Fig. 17)

- The engine in your tractor has been shipped, from the factory, already filled with summer weight oil.
- Check engine oil with tractor on level ground.
- Remove oil fill cap/dipstick and wipe clean, reinsert the dipstick and push it all the way down into the tube, wait for a few seconds, remove and read oil level. If necessary, add oil until "FULL" mark on dipstick is reached. Do not overfill.
- For cold weather operation you should change oil for easier starting (See "OIL VISCOSITY CHART" in the Customer Responsibilities section of this manual).
- To change engine oil, see the Customer Responsibilities section in this manual.

## **OPERATION**

#### ADD GASOLINE

• Fill fuel tank. Use fresh, clean, regular unleaded gasoline. (Use of leaded gasoline will increase carbon and lead oxide deposits and reduce valve life).

**IMPORTANT:** WHEN OPERATING IN TEMPERATURES BELOW 32°F(0°C), USE FRESH, CLEAN WINTER GRADE GASOLINE TO HELP INSURE GOOD COLD WEATHER STARTING.

WARNING: Experience indicates that alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage. To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Use fresh fuel next season. See Storage Instructions for additional information. Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.



CAUTION: Fill to bottom of gas tank filler neck. Do not overfill. Wipe off any spilled oil or fuel. Do not store, spill or use gasoline near an open flame.

### TO START ENGINE (See Fig. 9)

When starting engine for the first time or if engine has run out of fuel, it will take extra cranking time to move fuel from the tank to the engine.

- Depress clutch/brake pedal and set parking brake.
- Place motion control lever in neutral (N) position.
- Move attachment clutch to "DISENGAGED" position.
- Pull choke control out to choke (|\(\circ\)|) position for cold engine start. For warm engine start do not use choke control.
- Move throttle control to midway between fast (\*) and slow (\*) positions.
- Insert key into ignition and turn key clockwise to "START" position and release key as soon as engine starts. Do not run starter continuously for more than fifteen seconds per minute. If engine does not start after several attempts, move throttle control to fast (\*) position, wait a few minutes and try again.
- When engine starts, slowly push choke control in.
- Move throttle control to fast (4) position.
- Allow engine to warm up for a few minutes before engaging drive or attachments.

IMPORTANT: COLD STARTING FOR HYDRO (BELOW 40°F) - AFTER STARTING ENGINE AND BEFORE DRIVING, LET TRANSMISSION WARM UP FOR ONE (1) MINUTE BY PLACING MOTION CONTROL LEVER IN NEUTRAL (N) POSITION AND RELEASING CLUTCH/BRAKE PEDAL.

**NOTE:** If at a high altitude (above 3000 feet) or in cold temperatures (below 32°F), the carburetor fuel mixture may need to be adjusted for best engine performance. See "TO ADJUST CARBURETOR" in the Service and Adjustments section of this manual.

#### PURGE TRANSMISSION



CAUTION: Never engage or disengage freewheel lever while the engine is running.

To ensure proper operation and performance, it is recommended that the transmission be purged before operating tractor for the first time. This procedure will remove any trapped air inside the transmission which may have developed during shipping of your tractor.

**IMPORTANT:** SHOULD YOUR TRANSMISSION REQUIRE REMOVAL FOR SERVICE OR REPLACEMENT, IT SHOULD BE PURGED AFTER REINSTALLATION BEFORE OPERATING THE TRACTOR.

- Place tractor safely on level surface with engine off and parking brake set.
- Disengage transmission by placing freewheel control in freewheeling position (See "TO TRANSPORT" in this section of manual).
- Sitting in the tractor seat, start engine. After the engine is running, move throttle control to slow ( ) position. With motion control lever in neutral (N) position, slowly disengage clutch/brake pedal.
- Move motion control lever to full forward position and hold for five (5) seconds. Move lever to full reverse position and hold for five (5) seconds. Repeat this procedure three (3) times.

**NOTE:** During this procedure there will be no movement of drive wheels. The air is being removed from hydraulic drive system.

- Move motion control lever to neutral (N) position. Shutoff engine and set parking brake.
- Engage transmission by placing freewheel control in driving position (See "TO TRANSPORT" in this section of manual).
- Sitting in the tractor seat, start engine. After the engine is running, move throttle control to half (1/2) speed. With motion control lever in neutral (N) position, slowly disengage clutch/brake pedal.
- Slowly move motion control lever forward, after the tractor moves approximately five (5) feet, slowly move motion control lever to reverse position. After the tractor moves approximately five (5) feet return the motion control lever to the neutral (N) position. Repeat this procedure with the motion control lever three (3) times.
- Your tractor is now purged and now ready for normal operation.

# **OPERATION**

#### MOWING TIPS

- Tire chains cannot be used when the mower housing is attached to tractor.
- Mower should be properly leveled for best mowing performance. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.
- The left hand side of mower should be used for trimming.
- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the machine. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished (See Fig. 12).
- If grass is extremely tall, it should be mowed twice to reduce load and possible fire hazard from dried clippings. Make first cut relatively high; the second to the desired height.
- Do not mow grass when it is wet. Wet grass will plug mower and leave undesirable clumps. Allow grass to dry before mowing.
- Always operate engine at full throttle when mowing to assure better mowing performance and proper discharge of material. Regulate ground speed by selecting a low enough gear to give the mower cutting performance as well as the quality of cut desired.
- When operating attachments, select a ground speed that will suit the terrain and give best performance of the attachment being used.

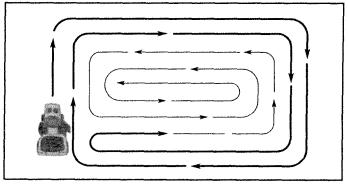


FIG. 12

#### **MULCHING MOWING TIPS**

IMPORTANT: FOR BEST PERFORMANCE, KEEP MOWER HOUSING FREE OF BUILT-UP GRASS AND TRASH. CLEAN AFTER EACH USE.

- The special mulching blade will recut the grass clippings many times and reduce them in size so that as they fall onto the lawn they will disperse into the grass and not be noticed. Also, the mulched grass will biodegrade quickly to provide nutrients for the lawn. Always mulch with your highest engine (blade) speed as this will provide the best recutting action of the blades.
- Avoid cutting your lawn when it is wet. Wet grass tends to form clumps and interferes with the mulching action.
   The best time to mow your lawn is the early afternoon.
   At this time the grass has dried and the newly cut area will not be exposed to the direct sun.
- For best results, adjust the mower cutting height so that the mower cuts off only the top one-third of the grass blades (See Fig. 13). For extremely heavy mulching, reduce your width of cut on each pass and mow slowly.
- Certain types of grass and grass conditions may require that an area be mulched a second time to completely hide the clippings. When doing a second cut, mow across or perpendicular to the first cut path.
- Change your cutting pattern from week to week. Mow north to south one week then change to east to west the next week. This will help prevent matting and graining of the lawn.

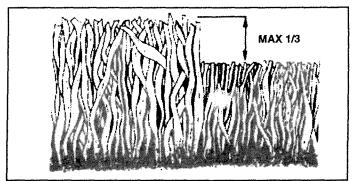


FIG. 13

FI AS	IAINTENANCE SCHEDULI LL IN DATES S YOU COMPLETE EGULAR SERVICE		aEFOR!	EACH!	JSE HOURS EVERY	HOUR	S HOUS 25 HOUS EVERY	AS HOUSOHOUS VERY	RS HOU 100 HOU EVERY S	RS ON EASON EFORE	SER'	VICE	E DA	TES
r	Check Brake Operation	V		1										
	Check Tire Pressure	V		1		1		1						
I	Check for Loose Fasteners	V					17		V					
R	Sharpen/Replace Mower Blades				1/4									
IA C	Lubrication Chart				1				1					
Ť	Check Battery Level/Recharge				6									
0	Clean Battery and Terminals				1				1					
R	Check Transaxle Cooling				V									
	Adjust Blade Belt(s) Tension						<b>1</b> 5							
	Adjust Motion Drive Belt(s) Tension						<b>1</b> 5							
	Check Engine Oil Level	V		1										
	Change Engine Oil		1		1,2,3			1	V					
Ε	Clean Air Filter				1/2				1					
N	Clean Air Screen				1/2		1							
G-ZE	Inspect Muffler/Spark Arrester					1								
	Replace Oil Filter (If equipped)						1,2							
	Clean Engine Cooling Fins						1/2							
	Replace Spark Plug						1	1						
	Replace Air Filter Paper Cartridge						1/2					7	$\neg$	
	Replace Fuel Filter							1					_	

- 1 Change more often when operating under a heavy load or in high ambient temperatures.
- 2 Service more often when operating in dirty or dusty conditions.
- 3 If equipped with oil filter, change oil every 50 hours.
- 4 Replace blades more often when mowing in sandy soil.

- 5 If equipped with adjustable system.
- 6 Not required if equipped with maintenance-free battery.
- 7 Tighten front axle pivot bolt to 35 ft.-lbs. maximum. Do not overtighten.

### **GENERAL RECOMMENDATIONS**

The warranty on this tractor does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, operator must maintain tractor as instructed in this manual.

Some adjustments will need to be made periodically to properly maintain your tractor.

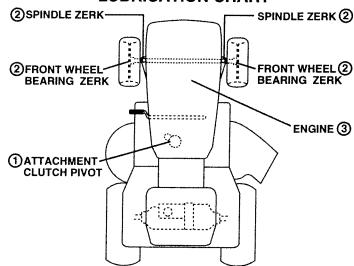
All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

 Once a year you should replace the spark plug, clean or replace air filter, and check blades and belts for wear. A new spark plug and clean air filter assure proper air-fuel mixture and help your engine run better and last longer.

#### **BEFORE EACH USE**

- Check engine oil level.
- Check brake operation.
- Check tire pressure.
- Check for loose fasteners.

#### **LUBRICATION CHART**



- (1) SAE 30 MOTOR OIL
- **②GENERAL PURPOSE GREASE**
- 3 REFER TO CUSTOMER RESPONSIBILITIES "ENGINE" SECTION

IMPORTANT: DO NOT OIL OR GREASE THE PIVOT POINTS, WHICH HAVE SPECIAL NYLON BEARINGS. VISCOUS LUBRICANTS WILL ATTRACT DUST AND DIRT THAT WILL SHORTEN THE LIFE OF THE SELF-LUBRICATING BEARINGS. IF YOU FEEL THEY MUST BE LUBRICATED, USE ONLY A DRY, POWDERED GRAPHITE TYPE LUBRICANT SPARINGLY.

#### TRACTOR

Always observe safety rules when performing any maintenance.

#### **BRAKE OPERATION**

If tractor requires more than six (6) feet stopping distance at high speed in highest gear, then brake must be adjusted. (See "TO ADJUST BRAKE" in the Service and Adjustments section of this manual).

#### **TIRES**

- Maintain proper air pressure in all tires (See "PROD-UCT SPECIFICATIONS" on page 3 of this manual).
- Keep tires free of gasoline, oil, or insect control chemicals which can harm rubber.
- Avoid stumps, stones, deep ruts, sharp objects and other hazards that may cause tire damage.

#### **BLADE CARE**

For best results mower blades must be kept sharp. Replace bent or damaged blades.

### **BLADE REMOVAL (See Fig. 14)**

- Raise mower to highest position to allow access to blades.
- Remove hex bolt, lock washer and flat washer securing blade.
- Install new or resharpened blade with trailing edge up towards deck as shown.
- Reassemble hex bolt, lock washer and flat washer in exact order as shown.
- Tighten bolt securely (30-35 Ft. Lbs. torque).

IMPORTANT: BLADE BOLT IS GRADE 8 HEAT TREATED.

**NOTE:** We do not recommend sharpening blade - but if you do, be sure the blade is balanced.

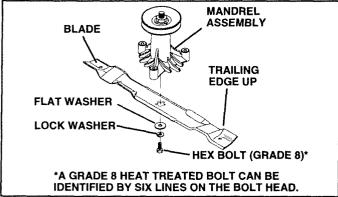


FIG. 14

## TO SHARPEN BLADE (See Fig. 15)

Care should be taken to keep the blade balanced. An unbalanced blade will cause excessive vibration and eventual damage to mower and engine.

 The blade can be sharpened with a file or on a grinding wheel. Do not attempt to sharpen while on the mower.

- To check blade balance, you will need a 5/8" diameter steel bolt, pin, or a cone balancer. (When using a cone balancer, follow the instructions supplied with balancer).
- Slide blade on to an unthreaded portion of the steel bolt or pin and hold the bolt or pin parallel with the ground.
   If blade is balanced, it should remain in a horizontal position. If either end of the blade moves downward, sharpen the heavy end until the blade is balanced.

**NOTE:** Do not use a nail for balancing blade. The lobes of the center hole may appear to be centered, but are not.

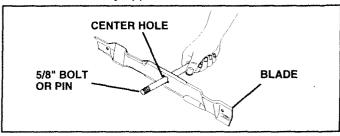


FIG. 15

## **BATTERY** (See Fig. 16)

Your tractor has a battery charging system which is sufficient for normal use. However, periodic charging of the battery with an automotive charger will extend its life.

- Acid solution level in each battery cell should be even with bottoms of vent wells. Add only distilled or iron free water if necessary. Do not overfill.
- Keep battery and terminals clean.
- Keep battery bolts tight.
- Keep vent caps tight and small vent holes in caps open.
- Recharge at 6 amperes for 1 hour.

#### TO CLEAN BATTERY AND TERMOMALS

Corrosion and dirt on the battery and terminals can cause the battery to "leak" power.

- Open battery box door.
- Disconnect BLACK battery cable first then RED battery cable and remove battery from tractor.
- Wash battery with solution of four tablespoons of baking soda to one gallon of water. Be careful not to get the soda solution into the cells.
- Rinse the battery with plain water and dry.
- Clean terminals and battery cable ends with wire brush until bright.
- Coat terminals with grease or petroleum jelly.
- Reinstall battery (See "INSTALL BATTERY" in the Assembly section of this manual).

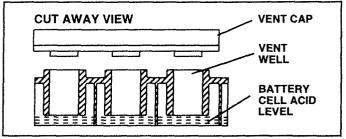


FIG. 16

#### TRANSAXLE COOLING

The fan and cooling fins of transmission should be kept clean to assure proper cooling.

Do not attempt to clean fan or transmission while engine is running or while the transmission is hot.

- Inspect cooling fan to be sure fan blades are intact and clean.
- Inspect cooling fins for dirt, grass clippings and other materials. To prevent damage to seals, do not use compressed air or high pressure sprayer to clean cooling fins.

#### TRANSAXLE PUMP FLUID

The transaxle was sealed at the factory and fluid maintenance is not required for the life of the transaxle. Should the transaxle ever leak or require servicing, contact your nearest authorized service center/department.

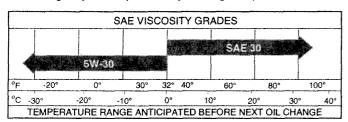
#### V-BELTS

Check V-belts for deterioration and wear after 100 hours of operation and replace if necessary. The belts are not adjustable. Replace belts if they begin to slip from wear.

#### **ENGINE**

#### LUBRICATION

Only use high quality detergent oil rated with API service classification SF or SG. Select the oil's SAE viscosity grade according to your expected operating temperature.



**NOTE:** Although multi-viscosity oils (5W30, 10W30 etc.) improve starting in cold weather, these multi-viscosity oils will result in increased oil consumption when used above 32°F. Check your engine oil level more frequently to avoid possible engine damage from running low on oil.

Change the oil after the first two hours of operation and every 50 hours thereafter or at least once a year if the tractor is not used for 50 hours in one year.

Check the crankcase oil level before starting the engine and after each eight (8) hours of operation. Tighten oil fill cap/dipstick securely each time you check the oil level.

#### TO CHANGE ENGINE OIL (See Fig. 17)

Determine temperature range expected before oil change. All oil must meet API service classification SF or SG.

- Be sure tractor is on level surface.
- · Oil will drain more freely when warm.
- Catch oil in a suitable container.
- Remove oil fill cap/dipstick. Be careful not to allow dirt to enter the engine when changing oil.
- · Remove drain plug.
- After oil has drained completely, replace oil drain plug and tighten securely.
- Refill engine with oil through oil fill dipstick tube. Pour slowly. Do not overfill. For approximate capacity see "PRODUCT SPECIFICATIONS" on page 3 of this manual.
- Use gauge on oil fill cap/dipstick for checking level. Be sure dipstick is in all the way for accurate reading. Keep oil at "FULL" line on dipstick.

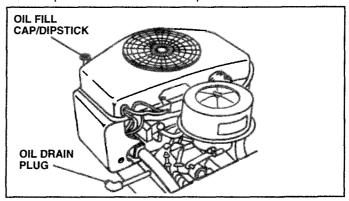


FIG. 17

### **CLEAN AIR SCREEN (See Fig. 19)**

Air screen must be kept free of dirt and chaff to prevent engine damage from overheating. Clean with a wire brush or compressed air to remove dirt and stubborn dried gum fibers.

#### AIR FILTER (See Fig. 18)

Your engine will not run properly using a dirty air filter. Clean the foam pre-cleaner after every 25 hours of operation or every season. Service paper cartridge every 100 hours of operation or every season, whichever occurs first.

Service air cleaner more often under dusty conditions.

- Remove wing nut and cover.
- Remove seal and cartridge plate.

#### TO SERVICE PRE-CLEANER

- Slide foam pre-cleaner off cartridge.
- Wash it in liquid detergent and water.
- Squeeze it dry in a clean cloth.
- Saturate it in engine oil. Wrap it in clean, absorbent cloth and squeeze to remove excess oil.

#### TO SERVICE CARTRIDGE

- Gently tap the flat side of the paper cartridge to dislodge dirt. Do not wash the paper cartridge or use pressurized air, as this will damage the cartridge. Replace a dirty, bent, or damaged cartridge.
- Reinstall the pre-cleaner (cleaned and oiled) over the paper cartridge.
- Reassemble air cleaner, cartridge plate, and seal.
- Install the air cleaner cover and wing nut. Tighten wing nut 1/2 turn to 1 full turn after nut contacts cover. Do not overtighten.

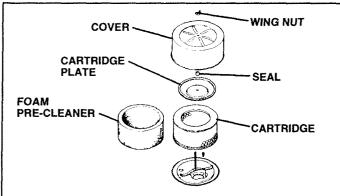


FIG. 18

## **ENGINE COOLING FINS (See Fig. 19)**

Remove any dust, dirt or oil from engine cooling fins to prevent engine damage from overheating. Engine blower housing must be removed. Remove side panels and hood (See "TO REMOVE HOOD AND GRILL ASSEMBLY" in the Service and Adjustments section of this manual).

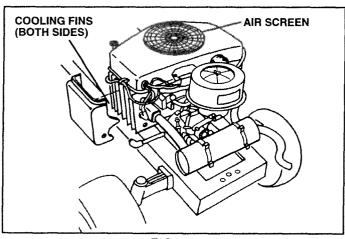


FIG. 19

#### **ENGINE OIL FILTER**

Replace the engine oil filter every season or every other oil change if the tractor is used more than 100 hours in one year.

#### MUFFLER

Inspect and replace corroded muffler and spark arrester (if equipped) as it could create a fire hazard and/or damage.

#### SPARK PLUGS

Replace spark plugs at the beginning of each mowing season or after every 100 hours of use, whichever comes first. Spark plug type and gap setting is shown in "PROD-UCT SPECIFICATIONS" on page 3 of this manual.

#### IN-LINE FUEL FILTER (See Fig. 20)

The fuel filter should be replaced once each season. If fuel filter becomes clogged, obstructing fuel flow to carburetor, replacement is required.

- With engine cool, remove filter and plug fuel line sections.
- Place new fuel filter in position in fuel line with arrow pointing towards carburetor.
- Be sure there are no fuel line leaks and clamps are properly positioned.
- Immediately wipe up any spilled gasoline.

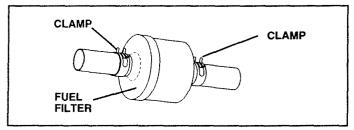


FIG. 20

#### **CLEANING**

- Clean engine, battery, seat, finish, etc. of all foreign matter.
- Keep finished surfaces and wheels free of all gasoline, oil, etc.
- Protect painted surfaces with automotive type wax.

We do not recommend using a garden hose to clean your tractor unless the electrical system, muffler, air filter and carburetor are covered to keep water out. Water in engine can result in a shortened engine life.

#### **CAUTION: BEFORE PERFORMING ANY SERVICE OR ADJUSTMENTS:**



- Depress clutch/brake pedal fully and set parking brake.
- Place motion control lever in neutral (N) position.
- Place attachment clutch in "DISENGAGED" position.
- Turn ignition key "OFF" and remove key.
- Make sure the blades and all moving parts have completely stopped.
- Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with plug.

## TO REMOVE MOWER (See Fig. 21)

Mower will be easier to remove from the right side of tractor.

- Place attachment clutch switch in "DISENGAGED" position.
- Move attachment lift lever forward to lower mower to its lowest position.
- Roll belt off electric clutch pulley.
- Disconnect anti-sway bar from chassis bracket by removing retainer spring.
- Disconnect suspension arms from rear deck brackets by removing retainer springs.
- Disconnect front links from deck by removing retainer springs.
- Raise lift lever to raise suspension arms. Slide mower out from under tractor.

**IMPORTANT:** IF AN ATTACHMENT OTHER THAN THE MOWER DECK IS TO BE MOUNTED ON THE TRACTOR, REMOVE THE FRONT LINKS.

## TO INSTALL MOWER (See Fig. 21)

- Raise attachment lift lever to its highest position.
- Slide mower under tractor with discharge guard to right side of tractor.
- · Lower lift lever to its lowest position.
- Install mower in reverse order of removal instructions.

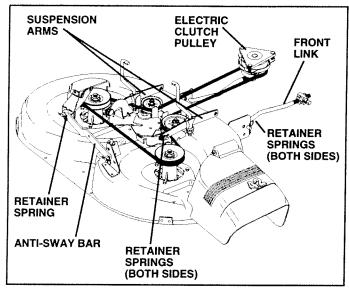


FIG. 21

#### TO LEVEL MOWER HOUSING

Adjust the mower while tractor is parked on level ground or driveway. Make sure tires are properly inflated (See "PRODUCT SPECIFICATIONS" on page 3 of this manual). If tires are over or underinflated, you will not properly adjust your mower.

SIDE-TO-SIDE ADJUSTMENT (See Figs. 22 and 23)

- · Raise mower to its highest position.
- At the midpoint of both sides of mower, measure height from bottom edge of mower to ground. Distance "A" on both sides of mower should be the same or within 1/4" of each other.
- If adjustment is necessary, make adjustment on one side of mower only.
- To raise one side of mower, tighten lift link adjustment nut on that side.
- To lower one side of mower, loosen lift link adjustment nut on that side.

**NOTE**: Each full turn of adjustment nut will change mower height about 1/8".

· Recheck measurements after adjusting.

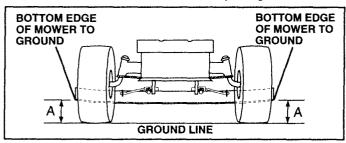


FIG. 22

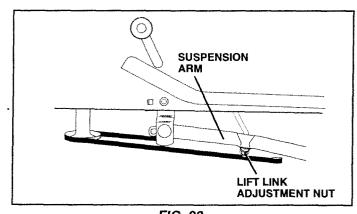


FIG. 23

FRONT-TO-BACK ADJUSTMENT (See Figs. 24 and 25)

IMPORTANT: DECK MUST BE LEVEL SIDE-TO-SIDE. IF THE FOLLOWING FRONT-TO-BACK ADJUSTMENT IS NECESSARY, BE SURE TO ADJUST BOTH FRONT LINKS EQUALLY SO MOWER WILL STAY LEVEL SIDE-TO-SIDE.

To obtain the best cutting results, the mower housing should be adjusted so that the front is approximately 1/4" to 3/4" lower than the rear when the mower is in its highest position.

Check adjustment on right side of tractor. Measure distance "D" directly in front and behind the mandrel at bottom edge of mower housing as shown.

- Before making any necessary adjustments, check that both front links are equal in length. Both links should be approximately 10-3/8".
- If links are not equal in length, adjust one link to same length as other link.
- To lower front of mower loosen nut "E" on both front links an equal number of turns.
- When distance "D" is 1/4" to 3/4" lower at front than rear, tighten nuts "F" against trunnion on both front links.
- To raise front of mower, loosen nut "F" from trunnion on both front links. Tighten nut "E" on both front links an equal number of turns.
- When distance "D" is 1/4" to 3/4" lower at front than rear, tighten nut "F" against trunnion on both front links.
- Recheck side-to-side adjustment.

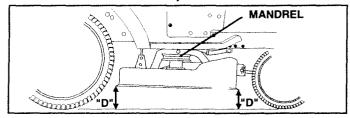
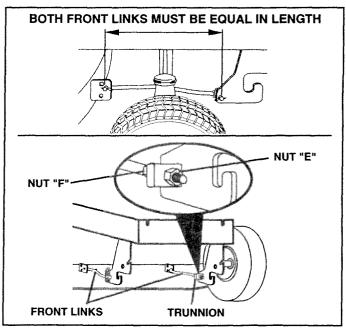


FIG. 24



# TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 26)

The mower blade drive belt may be replaced without tools. Park the tractor on level surface. Engage parking brake.

#### **BELT REMOVAL -**

- Remove mower from tractor (See "TO REMOVE MOWER" in this section of this manual).
- Work belt off both mandrel pulleys and idler pulleys.
- Pull belt away from mower.

#### **BELT INSTALLATION -**

- Install new belt in reverse order of removal.
- Make sure belt is in all pulley grooves and inside all belt guides.
- Install mower in reverse order of removal instructions.

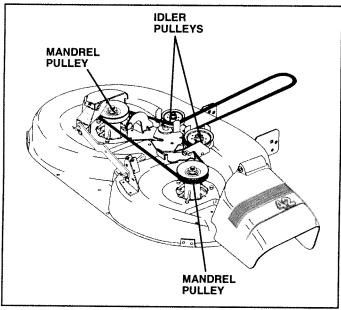


FIG. 26

## TO ADJUST BRAKE (See Fig. 27)

Your tractor is equipped with an adjustable brake system which is mounted on the right side of the transaxle.

If tractor requires more than six (6) feet stopping distance at high speed in highest gear, then brake must be adjusted.

- Depress clutch/brake pedal and engage parking brake.
- Measure distance between brake operating arm and nut "A" on brake rod.
- If distance is other than 1-3/4", loosen jam nut and turn nut "A" until distance becomes 1-3/4". Retighten jam nut against nut "A".
- Road test tractor for proper stopping distance as stated above. Readjust if necessary. If stopping distance is still greater than six (6) feet in highest gear, further maintenance is necessary. Contact your nearest authorized service center.

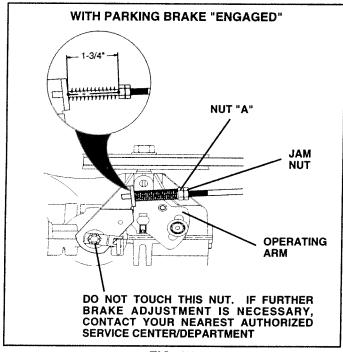


FIG. 27

# TO REPLACE MOTION DRIVE BELT (See Fig. 28)

Park the tractor on level surface. Engage parking brake. For assistance, there is a belt installation guide decal on bottom side of left footrest.

- Remove mower (See "TO REMOVE MOWER" in this section of this manual.)
- Remove upper belt keeper.
- Remove belt from stationary idler and clutching idler.
- Pull belt slack toward rear of tractor. Carefully remove belt upwards from transmission input pulley and over cooling fan blades.
- Pull belt toward front of tractor and remove downward from around engine pulley.
- Install new belt by reversing above procedure.

**IMPORTANT:** MAKE SURE UPPER BELT KEEPER IS POSITIONED PROPERLY BETWEEN LOCATOR TABS.

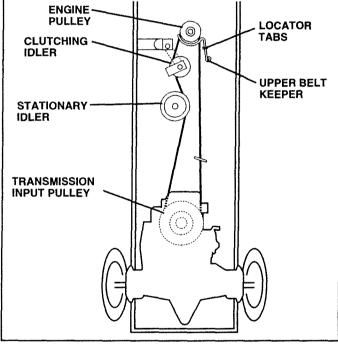


FIG. 28

# TO ADJUST MOTION CONTROL LEVER (See Fig. 29)

The motion control lever has been preset at the factory and adjustment should not be necessary.

If for any reason the motion control lever will not hold its position while at a selected speed, it may be adjusted at the friction pack located on the right side of transmission.

- Park tractor on level surface. Stop tractor by turning ignition key to "OFF" position, and engage parking brake.
- Adjust motion control lever by tightening adjustment locknut one half (1/2) turn.

**NOTE:** If for any reason the effort to move the motion control lever becomes too excessive, reverse the above adjustment procedure by loosening locknut 1/4 to 1/2 turn.

Road test tractor after adjustment and repeat procedure if necessary.

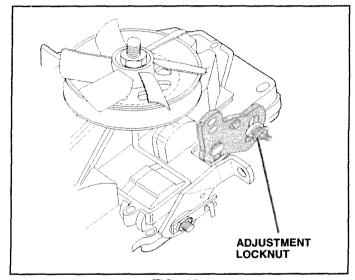


FIG. 29

#### TRANSMISSION REMOVAL/REPLACEMENT

Should your transmission require removal for service or replacement, it should be purged after reinstallation and before operating the tractor. See "PURGE TRANSMISSION" in Operation section of this manual.

#### TO ADJUST STEERING WHEEL ALIGNMENT

If steering wheel crossbars are not horizontal (left to right) when wheels are positioned straight forward, remove steering wheel and reassemble per instructions in the Assembly section of this manual.

#### FRONT WHEEL TOE-IN/CAMBER

The front wheel toe-in and camber are not adjustable on your tractor. If damage has occurred to affect the front wheel toe-in or camber, contact your nearest authorized service center/department.

# TO REMOVE WHEEL FOR REPAIRS (See Fig. 30)

- Block up axle securely.
- Remove axle cover, retaining ring and washers to allow wheel removal (rear wheel contains a square key - Do not lose).
- Repair tire and reassemble.
- On rear wheels only: align grooves in rear wheel hub and axle. Insert square key.
- Replace washers and snap retaining ring securely in axle groove.
- Replace axle cover.

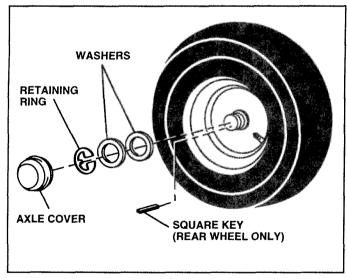


FIG. 30

# TO START ENGINE WITH A WEAK BATTERY (See Fig. 31)



CAUTION: Lead-acid batteries generate explosive gases. Keep sparks, flame and smoking materials away from batteries. Always wear eye protection when around batteries.

If your battery is too weak to start the engine, it should be recharged. If "jumper cables" are used for emergency starting, follow this procedure:

IMPORTANT: YOUR TRACTOR IS EQUIPPED WITH A 12 VOLT NEGATIVE GROUNDED SYSTEM. THE OTHER VEHICLE MUST ALSO BE A 12 VOLT NEGATIVE GROUNDED SYSTEM. DO NOT USE YOUR TRACTOR BATTERY TO START OTHER VEHICLES.

#### TO ATTACH JUMPER CABLES -

- Connect each end of the RED cable to the POSITIVE (+) terminal of each battery, taking care not to short against chassis.
- Connect one end of the BLACK cable to the NEGA-TIVE (-) terminal of fully charged battery.
- Connect the other end of the BLACK cable to good CHASSIS GROUND, away from fuel tank and battery.

#### TO REMOVE CABLES, REVERSE ORDER -

- BLACK cable first from chassis and then from the fully charged battery.
- RED cable last from both batteries.

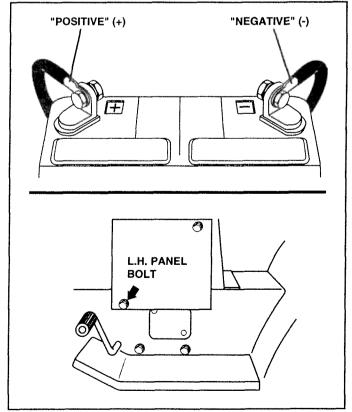


FIG. 31

### TO REPLACE HEADLIGHT BULB

- Raise hood.
- Pull bulb holder out of the hole in the backside of the grill.
- Replace bulb in holder and push bulb holder securely back into the hole in the backside of the grill.
- Close hood.

#### **INTERLOCKS AND RELAYS**

Loose or damaged wiring may cause your tractor to run poorly, stop running, or prevent it from starting.

 Check wiring. See electrical wiring diagram in the Repair Parts section of this manual.

#### TO REPLACE FUSE

Replace with 30 amp automotive-type plug-in fuse. The fuse holder is located behind the dash.

# TO REMOVE HOOD AND GRILL ASSEMBLY (See Fig. 32)

- · Raise hood.
- Unsnap headlight wire connector.
- Stand in front of tractor. Grasp hood at sides, tilt toward engine and lift off of tractor.
- To replace, reverse above procedures.

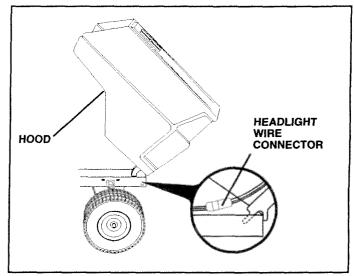


FIG. 32

#### **ENGINE**

# TO ADJUST THROTTLE CONTROL CABLE (See Fig. 33 & 34)

The throttle control has been preset at the factory and adjustment should not be necessary. Check adjustment as described below before loosening cable. If adjustment is necessary, proceed as follows:

- With engine not running, move throttle control lever to fast (\*) position.
- Check that speed control lever is against stop screw. If it is not, loosen casing clamp screw and pull throttle cable until lever is against screw. Tighten clamp screw securely.

### TO ADJUST CARBURETOR (See Fig. 35)

The carburetor has been present at the factory and adjustment should not be necessary. However, minor adjustment may be required to compensate for differences in fuel, temperature, altitude or load. If the carburetor does need adjustment, proceed as follows:

In general, turning the adjusting needles **in** (clockwise) decreases the supply of fuel to the engine giving a leaner fuel/air mixture. Turning the adjusting needles **out** (counterclockwise) increases the supply of fuel to the engine giving a richer fuel/air mixture.

**IMPORTANT:** DAMAGE TO THE NEEDLES AND THE SEATS IN CARBURETOR MAY RESULT IF SCREW IS TURNED IN TOO TIGHT.

#### PRELIMINARY SETTING -

- Be sure you have a clean air filter, and the throttle control cable is adjusted properly (see above).
- With engine off turn idle fuel adjusting needle in (clockwise) closing it finger tight and then turn out (counterclockwise) 1-1/4 turns.
- Turn main fuel adjusting needle in (clockwise) closing finger tight and then turn out (counterclockwise) 1 turn.

#### FINAL SETTING -

- Start engine and allow to warm for five minutes. Make final adjustments with engine running and shift/motion control lever in neutral (N) position.
- With throttle control lever in fast (�) position, turn main fuel adjusting needle in (clockwise) until engine begins to die then turn out (counterclockwise) until engine runs rough. Turn needle to a point midway between those two positions.
- Idle speed setting With throttle control lever in slow
   (
   ) position, engine should idle at 1400 RPM. If
   engine idles too slow or fast, turn idle speed adjusting
   screw in or out until correct idle is attained.
- Idle fuel needle setting With throttle control lever in slow ( ) position, turn idle fuel adjusting needle in (clockwise) until engine begins to die and then turn out (counterclockwise) until engine runs rough. Turn needle to a point midway between those two positions.
- Recheck idle speed. Readjust if necessary.

#### **ACCELERATION TEST -**

Move throttle control lever from slow (-) to fast (-)
position. If engine hesitates or dies, turn idle mixture
screw out (counterclockwise) 1/8 turn. Repeat test and
continue to adjust, if necessary, until engine accelerates smoothly.

High speed stop is factory adjusted. Do not adjust-damage may result.

IMPORTANT: NEVER TAMPER WITH THE ENGINE GOVERNOR, WHICH IS FACTORY SET FOR PROPER ENGINE SPEED. OVERSPEEDING THE ENGINE ABOVE THE FACTORY HIGH SPEED SETTING CAN BE DANGEROUS. IF YOU THINK THE ENGINE-GOVERNED HIGH SPEED NEEDS ADJUSTING, CONTACT YOUR NEAREST AUTHORIZED SERVICE CENTER/DEPARTMENT, WHICH HAS PROPER EQUIPMENT AND EXPERIENCE TO MAKE ANY NECESSARY ADJUSTMENTS.

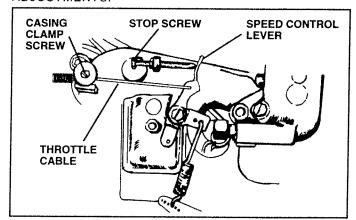


FIG. 33

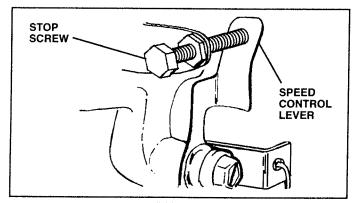
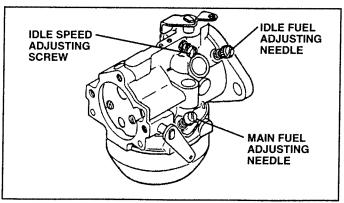


FIG. 34



# **STORAGE**

Immediately prepare your tractor for storage at the end of the season or if the tractor will not be used for 30 days or more.



CAUTION: Never store the tractor with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.

#### TRACTOR

Remove mower from tractor for winter storage. When mower is to be stored for a period of time, clean it thoroughly, remove all dirt, grease, leaves, etc. Store in a clean, dry area.

- Clean entire tractor (See "CLEANING" in the Customer Responsibilities section of this manual).
- Inspect and replace belts, if necessary (See belt replacement instructions in the Service and Adjustments section of this manual).
- Lubricate as shown in the Customer Responsibilities section of this manual.
- Be sure that all nuts, bolts and screws are securely fastened. Inspect moving parts for damage, breakage and wear. Replace if necessary.
- Touch up all rusted or chipped paint surfaces; sand lightly before painting.

#### **BATTERY**

- · Fully charge the battery for storage.
- After a period of time in storage, battery may require recharging.
- To help prevent corrosion and power leakage during long periods of storage, battery cables should be disconnected and battery cleaned thoroughly (see "TO CLEAN BATTERY AND TERMINALS" in the Customer Responsibilities section of this manual).
- After cleaning, leave cables disconnected and place cables where they cannot come in contact with battery terminals.
- Be sure battery drain tube is securely attached.
- If battery is removed from tractor for storage, do not store battery directly on concrete or damp surfaces.

### **ENGINE**

#### **FUEL SYSTEM**

IMPORTANT: IT IS IMPORTANT TO PREVENT GUM DEPOSITS FROM FORMING IN ESSENTIAL FUEL SYSTEM PARTS SUCH AS CARBURETOR, FUEL FILTER, FUEL HOSE, OR TANK DURING STORAGE. ALSO, EXPERIENCE INDICATES THAT ALCOHOL BLENDED FUELS (CALLED GASOHOL OR USING ETHANOL OR METHANOL) CAN ATTRACT MOISTURE WHICH LEADS TO SEPARATION AND FORMATION OF ACIDS DURING STORAGE. ACIDIC GAS CAN DAMAGE THE FUEL SYSTEM OF AN ENGINE WHILE IN STORAGE.

- · Drain the fuel tank.
- Start the engine and let it run until the fuel lines and carburetor are empty.
- Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.
- · Use fresh fuel next season.

NOTE: Fuel stabilizer is an acceptable alternative in minimizing the formation of fuel gum deposits during storage. Add stabilizer to gasoline in fuel tank or storage container. Always follow the mix ratio found on stabilizer container. Run engine at least 10 minutes after adding stabilizer to allow the stabilizer to a light the carburetor. Do not drain the gas tank and carburetor if sing fuel stabilizer.

#### **ENGINE OIL**

Drain oil (with engine warm) and replace with clean engine oil. (See "ENGINE" in the Customer Responsibilities section of this manual).

#### **CYLINDERS**

- Remove spark plug(s).
- Pour one ounce of oil through spark plug hole(s) into cylinder(s).
- Turn ignition key to "START" position for a few seconds to distribute oil.
- Replace with new spark plug(s).

#### OTHER

- Do not store gasoline from one season to another.
- Replace your gasoline can if your can starts to rust.
   Rust and/or dirt in your gasoline will cause problems.
- If possible, store your tractor indoors and cover it to give protection from dust and dirt.
- Cover your tractor with a suitable protective cover that does not retain moisture. Do not use plastic. Plastic cannot breathe which allows condensation to form and will cause your tractor to rust.

IMPORTANT: NEVER COVER TRACTOR WHILE ENGINE AND EXHAUST AREAS ARE STILL WARM.

# TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION
Will not start	<ol> <li>Out of fuel.</li> <li>Engine not "CHOKED" properly.</li> <li>Engine flooded.</li> <li>Bad spark plug.</li> <li>Dirty air filter.</li> <li>Dirty fuel filter.</li> <li>Water in fuel.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</li> <li>Engine valves out of adjustment.</li> </ol>	<ol> <li>Fill fuel tank.</li> <li>See "TO START ENGINE" in Operation section.</li> <li>Wait several minutes before attempting to start.</li> <li>Replace spark plug.</li> <li>Clean/replace air filter.</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> <li>Check all wiring.</li> <li>Contact an authorized service center/department.</li> <li>Contact an authorized service center/department.</li> </ol>
Hard to start	<ol> <li>Dirty air filter.</li> <li>Bad spark plug.</li> <li>Weak or dead battery.</li> <li>Dirty fuel filter.</li> <li>Stale or dirty fuel.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</li> <li>Engine valves out of adjustment.</li> </ol>	<ol> <li>Clean/replace air filter.</li> <li>Replace spark plug.</li> <li>Recharge or replace battery.</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and refill with fresh gasoline.</li> <li>Check all wiring.</li> <li>Contact an authorized service center/department.</li> <li>Contact an authorized service center/department.</li> </ol>
Engine will not turn over	<ol> <li>Clutch/brake pedal not depressed.</li> <li>Attachment clutch is engaged.</li> <li>Weak or dead battery.</li> <li>Blown fuse.</li> <li>Corroded battery terminals.</li> <li>Loose or damaged wiring.</li> <li>Faulty ignition switch.</li> <li>Faulty solenoid or starter.</li> <li>Faulty operator presence switch(es).</li> </ol>	<ol> <li>Depress clutch/brake pedal.</li> <li>Disengage attachment clutch.</li> <li>Recharge or replace battery.</li> <li>Replace fuse.</li> <li>Clean battery terminals.</li> <li>Check all wiring.</li> <li>Check/replace ignition switch.</li> <li>Check/replace solenoid or starter.</li> <li>Contact an authorized service center/department.</li> </ol>
Engine clicks but will not start	<ol> <li>Weak or dead battery.</li> <li>Corroded battery terminals.</li> <li>Loose or damaged wiring.</li> <li>Faulty solenoid or starter.</li> </ol>	<ol> <li>Recharge or replace battery,</li> <li>Clean battery terminals.</li> <li>Check all wiring.</li> <li>Check/replace solenoid or starter.</li> </ol>
Loss of power	<ol> <li>Cutting too much grass/too fast.</li> <li>Throttle in "CHOKE" position.</li> <li>Build-up of grass, leaves and trash under mower.</li> <li>Dirty air filter.</li> <li>Low oil level/dirty oil.</li> <li>Faulty spark plug.</li> <li>Dirty fuel filter.</li> <li>Stale or dirty fuel.</li> <li>Water in fuel.</li> <li>Dirty engine air screen/fins.</li> <li>Dirty/clogged muffler.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</li> <li>Engine valves out of adjustment.</li> </ol>	<ol> <li>Set in "Higher Cut" position/reduce speed.</li> <li>Adjust throttle control.</li> <li>Clean underside of mower housing.</li> <li>Clean/replace air filter.</li> <li>Check oil level/change oil.</li> <li>Clean and regap or change spark plug.</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and refill with fresh gasoline.</li> <li>Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> <li>Connect and tighten spark plug wire.</li> <li>Clean engine air screen/fins.</li> <li>Clean/replace muffler.</li> <li>Check all wiring.</li> <li>Contact an authorized service center/department.</li> <li>Contact an authorized service center/department.</li> </ol>
Excessive vibration	<ol> <li>Worn, bent or loose blade.</li> <li>Bent blade mandrel.</li> <li>Loose/damaged part(s).</li> </ol>	Replace blade. Tighten blade bolt.     Replace blade mandrel.     Tighten loose part(s). Replace damaged parts.

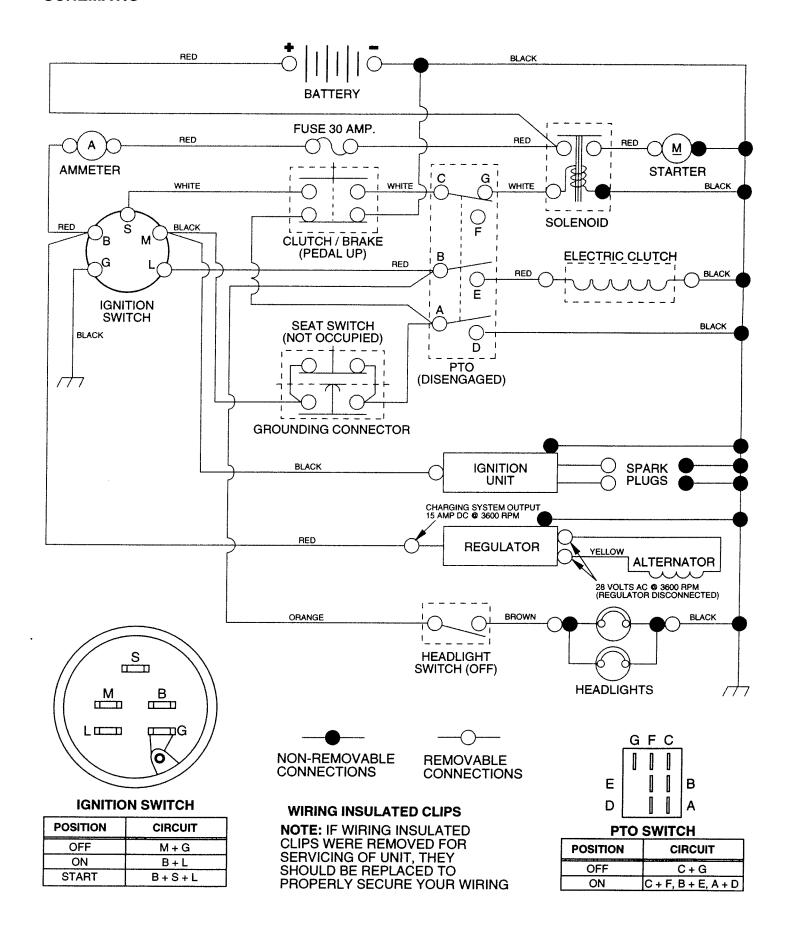
# **TROUBLESHOOTING POINTS**

PROBLEM	CAUSE	CORRECTION
Engine continues to run when operator leaves seat with attachment clutch engaged	Faulty operator-safety presence control system.	Check wiring, switches and connections. If not corrected, contact an authorized service center/department.
Poor cut - uneven	<ol> <li>Worn, bent or loose blade.</li> <li>Mower deck not level.</li> <li>Buildup of grass, leaves, and trash under mower.</li> <li>Bent blade mandrel.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol> <li>Replace blade. Tighten blade bolt.</li> <li>Level mower deck.</li> <li>Clean underside of mower housing.</li> <li>Replace blade mandrel.</li> <li>Clean around mandrels to open vent holes.</li> </ol>
Mower blades will not rotate	<ol> <li>Obstruction in clutch mechanism.</li> <li>Worn/damaged mower drive belt.</li> <li>Frozen idler pulley.</li> <li>Frozen blade mandrel.</li> </ol>	<ol> <li>Remove obstruction.</li> <li>Replace mower drive belt.</li> <li>Replace idler pulley.</li> <li>Replace blade mandrel.</li> </ol>
Poor grass discharge	<ol> <li>Engine speed too slow.</li> <li>Travel speed too fast.</li> <li>Wet grass.</li> <li>Mower deck not level.</li> <li>Low/uneven tire air pressure.</li> <li>Worn, bent or loose blade.</li> <li>Buildup of grass, leaves and trash under mower.</li> <li>Mower drive belt wom.</li> <li>Blades improperly installed.</li> <li>Improper blades used.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol> <li>Place throttle control in "FAST" position.</li> <li>Shift to slower speed.</li> <li>Allow grass to dry before mowing.</li> <li>Level mower deck.</li> <li>Check tires for proper air pressure.</li> <li>Replace/sharpen blade. "Ighten blade bolt.</li> <li>Clean underside of mower tourng.</li> <li>Replace mower drive belt.</li> <li>Reinstall blades sharp edge down.</li> <li>Replace with blades listed in this manual.</li> <li>Clean around mandrels to open vent holes.</li> </ol>
Headlight(s) not working (if so equipped)	<ol> <li>Switch is "OFF".</li> <li>Bulb(s) burned out.</li> <li>Faulty light switch.</li> <li>Loose or damaged wiring.</li> <li>Blown fuse.</li> </ol>	<ol> <li>Turn switch "ON".</li> <li>Replace bulb(s).</li> <li>Check/replace light switch.</li> <li>Check wiring and connections.</li> <li>Replace fuse.</li> </ol>
Battery will not charge	<ol> <li>Bad battery cell(s).</li> <li>Poor cable connections.</li> <li>Faulty regulator (if so equipped).</li> <li>Faulty alternator.</li> </ol>	<ol> <li>Replace battery.</li> <li>Check/clean all connections.</li> <li>Replace regulator.</li> <li>Replace alternator.</li> </ol>
Tractor "creeps" with motion control lever in "neutral" position (Fender shift models only)	Motion control lever is out of adjustment.	Adjust motion control lever.
Loss of drive	<ol> <li>Freewheel control in "disengaged" position.</li> <li>Motion drive belt worn, damaged, or broken.</li> <li>Air trapped in transmission during shipment or servicing.</li> </ol>	<ol> <li>Place freewheel control in "engaged" position.</li> <li>Replace motion drive belt.</li> <li>Purge transmission.</li> </ol>
Engine "backfires" when turning engine "OFF"	Engine throttle control not set at "SLOW" position for 30 seconds before stopping engine.	Move throttle control to "SLOW" position and allow to idle for 30 seconds before stopping engine.

# **SERVICE NOTES**

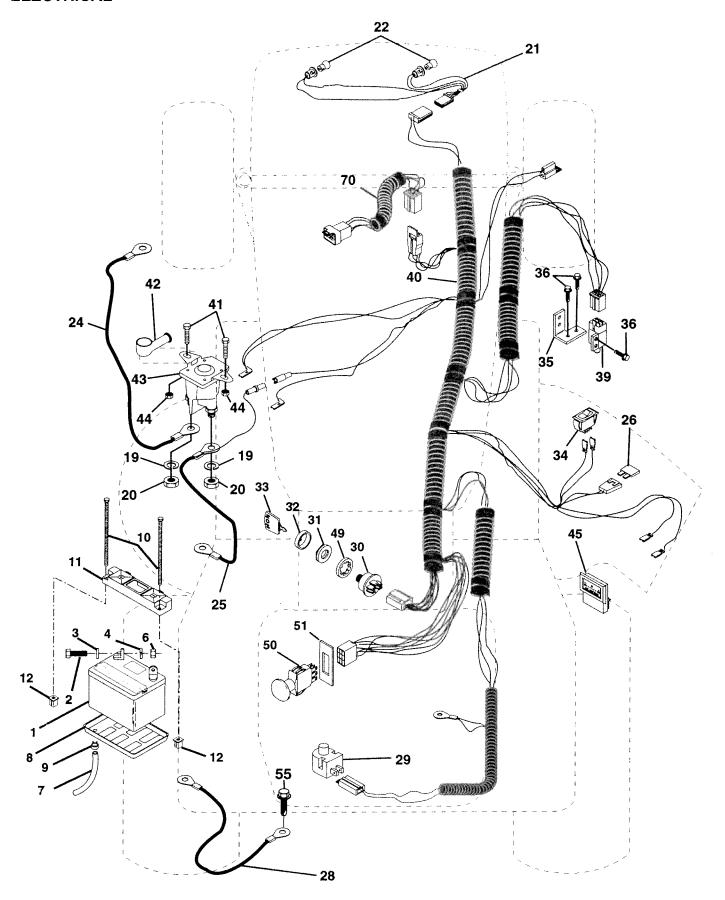
#### TRACTOR - - MODEL NUMBER 917.252710

#### **SCHEMATIC**



# **TRACTOR - - MODEL NUMBER 917.252710**

## **ELECTRICAL**



# **TRACTOR - - MODEL NUMBER 917.252710**

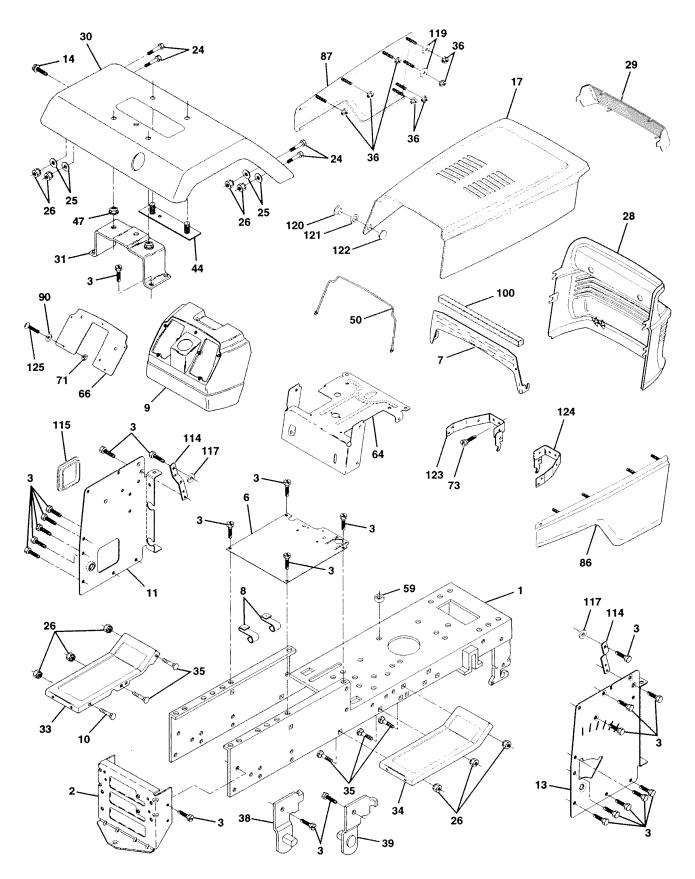
## **ELECTRICAL**

KEY NO.	PART NO.	DESCRIPTION
28 29 30 31 32 33 34	136850 4152J 146148 4799J 108824X 145491 121305X 144921 140400 141226 140403 110712X 108236X STD601005 109553X 145490 71110412 131563 145673 73800400 122822X 11151000 146283 140405	Battery Bolt, Hex 1/4-20 UNC x 3/4 Washer Washer Nut Tube, Plastic Tray, Battery Clamp, Hose Bolt Holddown Battery Dash Mount Nut, Push Nylon 1/4 Washer, Lock Nut, Hex, Jam 1/4-20 UNC Harness, Light Socket W/4152J Bulb, Light Cable, Battery Cable Battery Fuse Cable, Ground Switch, Plunger Switch, Ignition Nut, Ignition Cover, Ignition Switch Key, Ignition Switch, Light Bracket, Switch Screw Switch, Interlock Harness, Ignition Bolt Blk Fin Hex 1/4-20 UNC x 3/4 Cover, Terminal Solenoid Nut, Lock W/Insert 1/4-20 UNC Ammeter Rectangular 15 Amp. Washer Lock Internal Tooth 5/8 Switch PTO 3 PDT Red Delta Ring Retainer PTO Screw Thdrol 5/16-18 x 1/2 TYT Harness Engine

**NOTE:** All component dimensions given in U.S. inches 1 inch = 25.4 mm

# **TRACTOR - - MODEL NUMBER 917.252710**

## **CHASSIS AND ENCLOSURES**



# **TRACTOR - - MODEL NUMBER 917.252710**

## **CHASSIS AND ENCLOSURES**

KEY NO.		DESCRIPTION	KEY NO.		DESCRIPTION
1	145501	Chassis	44	140675	Fender Strap
2	140356	Drawbar	47	105531X	Nut, Push, Nylon
3	17490612	Screw, Thd., Roll. 3/8-16 x 3/4	50	137304	Rod, Support Hood
_		Type TT	59	110436X	Bushing, Snap, Split
6	145206	Saddle	64	145095	Dash, Lower
7	145351	Heat Shield	66	143485X014	Plate, Dash
8	126471X	Clip Insulator	69	140181	Plate, Support, Battery
.9	145203	Dash, Plastic	71	73640400	Nut
10	72140608	Bolt, Carriage 3/8-16 x 1	73	17580408	Screw Tap Lite 1/4-20 x 1/2
11	145218	Panel, Dash, LH	75	108067X	Nut, Pal
13	145217	Panel, Dash, RH	86	136670X558	
14	17490608	Screw, Thd., Roll. 3/8-16 x 1/2	87	136671X558	
		Type TT	90	STD551025	Washer 17/64
17	136673X558	Hood Assembly	100	105037X	Strip Foam
24	STD523710	Bolt	114	145349	Bracket, Support, Dash
25	19131312	Washer 13/32 x 13/16 x 12 Gauge	115	121794X	Cover A ccess Black Square
26	STD541437	Nut	119	19092016	Washer 9/32 x 1-1/4 x 16 Ga.
28	136373X428	Grill		137270	Rivet, Rachet, Male
29	136374	Lens, Bar, Clear	121	137269	Washer, Nylon
30	140002X558			137271	Rivet, Ratchet, Female
31	137113	Bracket Assembly, Fender	123	136814	Bracket Assembly, Front Pivot
33	145244X558	Footrest, LH			Hinge, LH
34	145243X558	Footrest, RH	124	136813	Bracket Assembly, Front Pivot
35	STD533707	Bolt			Hinge, RH
36	108067X	Nut, Pal	125	74180412	Screw, Machine 1/4-20 x 3/4
38	139886	Bracket Assembly, Pivot, LH			
39	139887	Bracket Assembly, Pivot, RH	NOT	E: All compon 1 inch = 25	ent dimensions given in U.S. inches
				1 111011 20	· <b>T</b> 11011

15 1

## **TRACTOR - - MODEL NUMBER 917.252710** DRIVE -18 - 88 92-36 35

84 100

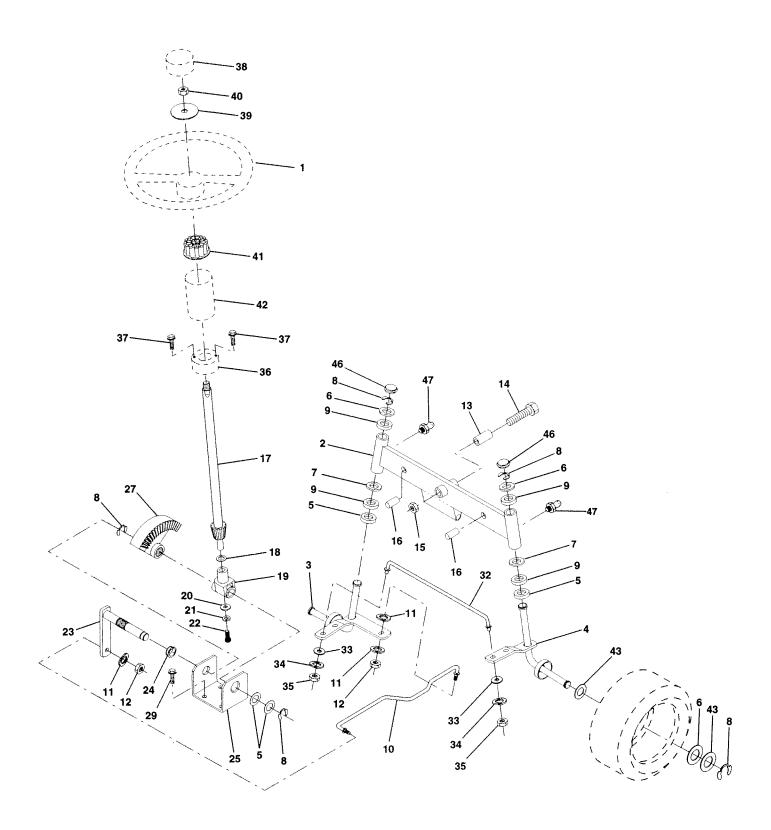
# **TRACTOR - - MODEL NUMBER 917.252710**

## **DRIVE**

KE NO		DESCRIPTION	KE'		DESCRIPTION
1	144436	Transaxle Assembly	56	74760620	Bolt Hex 3/8-16 x 1-1/4
2	142431	Spring, Return, Brake	57	140294	V-Belt, Ground Drive
3	143995	Pulley, Transaxle	58	140470	Keeper Bolt Lh Hydro 0750. 18/20"
8	141002	Rod Shift Hydro LT	59	140312	Keeper, Center Span
9	137140	Clutch Elect	60	121218X	Keeper Belt Engine
10	76020416	Pin Cotter 1/8 x 1 CAD	61	17490612	Screw Thdrol. 3/8-16 x 3/4 Ty. TT
15	74780544	Bolt Fin Hex 5/16-18 Unc	62	8883R	Cover, Pedal
16	73800500	Nut Lock Hex W/Ins. 5/16-18 Unc	63	<del>440186</del>	Pulley, Engine 140189
17	126197X	Washer 1-1/2 OD x 15/32 ID x .250	65	STD551143	Washer Lock Hvy HLCL Spr. 7/16
18	74780616	Bolt Fin Hex 3/8-16 Unc x 1 Gr. 5	67	STD523710	Bolt Fin Hex 3/8-16 x 1
19	73800600	Nut Lock Hex W/Wsh 3/8-16 Unc	68	105730X	Keeper Belt Engine
20	71170768	Bolt Hex 7/16-20 x 4-1/4 Ga. 5	69	142432	Screw
21	130564	Knob, Deluxe 1/2-13	71		Strap Torque Lh Hydro 18/20" T
22 23	145240	Rod, Brake Hydro	72	19132012	Washer 13/32 x 1-1/4 x 12 Gauge
25 25	137141	Bracket Asm. Mtg CL	73	140157	Strap Torque Rh Hydro 18/20" Ť
26	106888X 19131316	Spring, Brake Rod	74 75	121199X	Spacer, Split
27	76020412	Washer Pin Cotter 1/8 x 3/4 CAD.	75 76	121749X 12000001	Washer 25/32 x 1-1/4 x 16 Gauge
28	145204	Rod, Parking Brake	76 77	12000001 123583X	E-Ring
29	124236X	Cap, Parking Brake	78	123363X 121748X	Key, Šquare
30	130807	Bracket, Transaxle	81	140154	Washer 25/32 x 1-5/8 x 16 Gauge
31	127275X	Keeper Belt Lh	82	123782X	Shaft Asm. Cross Hydro 20" Tires Spring Torsion T/A
32	74760512	Bolt Hex Hd 5/16-18 Unc x 3/4	83	19171216	Washer 17/32 x 3/4 x 16 Ga.
33	STD533107	Bolt RDHD SQNK 5/16-18 x 3/4	84	140548	Rod, Tie Hydro 20" Tires
34	122424X	Shaft, Foot Pedal	86	71208	Bushing Rod Strig. 629/632 ID
35	120183X	Bearing, Nylon	87	19212016	Washer 21/32 x 1-1/4 x 16 Ga.
36	19211616	Washer	88	12000008	Ring Klip #5304-62
37	1572H	Pin, Roll	89	139989	Console, Shift
38	123674X	Pulley, Idler, Flat	91	74780536	Bolt Fin Hex 5/16-18 x 2-1/4
39	74760644	Bolt	92	74780524	Bolt Fin Hex 5/6-18 Unc x 1-1/2
40	4470J	Spacer, Split	93	142564	Line Fuel Hydro 4"
41	109070X	Keeper, Belt Retainer	94	140462	Fan, Hydro 7"
42	19131312	Washer 13/32 x 13/16 x 12 Gauge	95	144643	Control Bypass Hydro 20" Tires
43	19111012	Washer 11/32 x 5/8 x 12 Ga.		4497H	Retainer Spring 1" Zinc/Cad
44	105706X	Bearing, Nylon	97	140469	Keeper Bolt Rh Hydro 0750. 18/20"
45	110812X	Washer, Hardened		73510600	Nut Keps Hex 3/8-16 Unc
46	12000039	Ring, Klip	100	19111216	Washer 11/32 x 3/4 x 16 Ga.
47	127783	Pulley, Idler, V-Groove	102	141322	Washer Bellville .501D x 1.50D
48 49	123789X	Bellcrank Assembly		50831	Nut Nylon Insert 1/2-20 Unf.
49 50	123205X	Retainer, Belt	104	140156	Arm, Control Hydro
50 51	74760624 STD 541437	Bolt Nut Crownlook 9/9 10	105	71070516	Screw Cap Hex 5/16 x 18 x 1
52	73680500	Nut, Crownlock 3/8-16	106	74780520	Bolt Fin Hex 5/16-18 Unc x 1-1/4
53	105710X	Nut, Crownlock 5/16-18 Unc Link, Clutch			
55	105710X 105709X	Spring, Return, Clutch	NOT	E: All compor	nent dimensions give in U.S. inches.
00	1001037	opning, ricium, Olulon		1 inch - 25	A mm

# **TRACTOR - - MODEL NUMBER 917.252710**

## STEERING ASSEMBLY



# **TRACTOR - - MODEL NUMBER 917.252710**

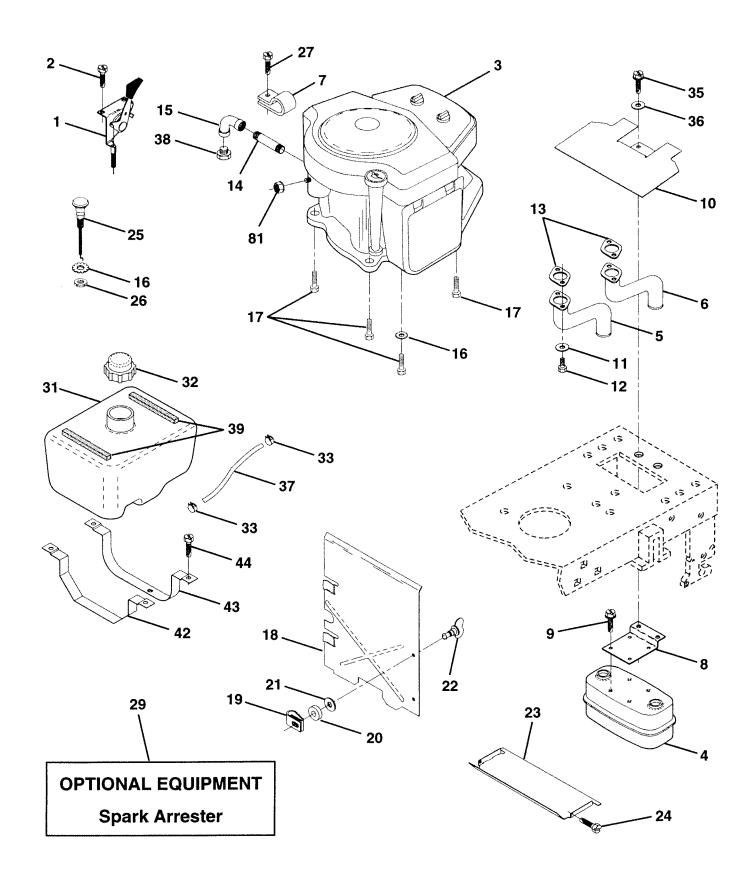
## STEERING ASSEMBLY

KE NO		DESCRIPTION
1 2 3	121472X 142033 135227	Steering Wheel Axle Assembly, Front Spindle Assembly, LH
4	135228	Spindle Assembly, RH
5 6	6266H 121748X	Bearing, Race, Thrust, Hardened Washer 25/32 x 1-5/8 x 16 Gauge
7	19272016	Washer 27/32 x 1-1/4 x 16 Gauge
8 9	12000029 3366R	Ring, Klip Bearing
10	130468	Link, Drag
11 12	STD551137 73610600	Washer, Lock Nut, Hex, Fin. 3/8-24 UNF
13	110438X	Spacer, Bearing, Front Axle
14 15	74011055	Bolt, Hex 5/8-11 UNC x 3-1/2 Locknut, Hex, Jam, w/Washer
		Insert 5/8-11 UNC
16 17	132624 128758	Pin, Axle, Large 5/8 x 1.55/1.54 Shaft Assembly, Steering
18	57079	Washer, Thrust .515 x .750 x .033
19 20	124035X 126684X	Support, Shaft
21	STD551125	Washer, Shim 1/4 x 5/8 x .062 Washer
22	71070410	Screw, Hex Socket Head
23	127501	1/4-20 x 5/8 Shaft Assembly, Pittman
24	109816X	Nyliner, Snap-In
25 27	124036X 136874	Bracket, Steering Gear, Sector
28	19131416	Washer 13/32 x 7/8 x 16 Gauge
29	17490612	Screw, Thd., Roll. 3/8-16 x 3/4 Type TT
32	130467	Tie Rod
33 34	STD551031 STD551137	Washer 11/32 x 3/4 x 16 Ga. Washer Lock Hvy HLCL Spr. 5/16
35	73810500	Locknut 5/16-24 UNF
37 36	17541008 145207	Screw SLFTP #10-24 x 1/2 TT-B Bushing, Steering
38	126805X	Insert, Cap, Steering Wheel
39 40	100712K STD541350	Washer .53 x 2.25 x .160 Nut
41	100711L	Adapter, Steering Wheel
42 43	140216 121749X	Boot Shaft Steering Washer 25/32 x 1-1/4 x 16 Gauge
45	106933X	Knob, Round
46 47	121232X 6855M	Cap, Spindle
41	OGGGIVI	Fitting, Grease131672

**NOTE:** All component dimensions given in U.S. inches 1 inch = 25.4 mm

# **TRACTOR - - MODEL NUMBER 917.252710**

## **ENGINE**



## **TRACTOR - - MODEL NUMBER 917.252710**

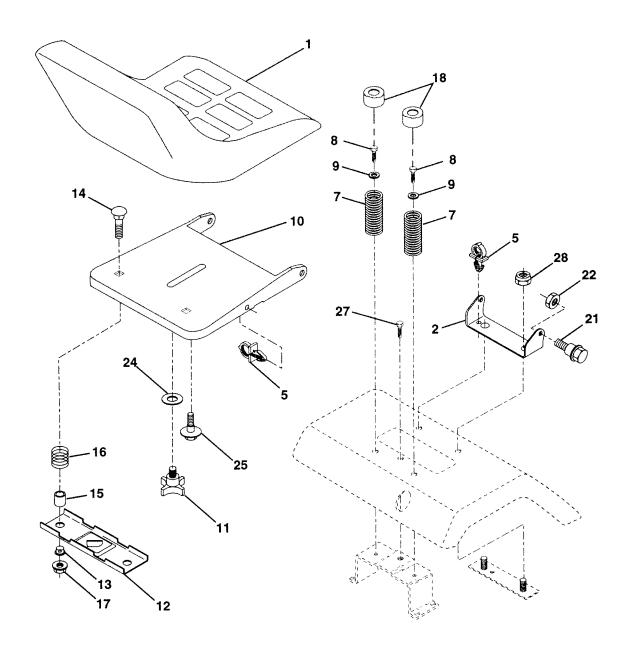
### **ENGINE**

KEY PART NO. NO.	DESCRIPTION
1 132755 2 17720410	Control, Throttle Screw, Hex Head, Thread Cutting
3 141948	1/4-20 x 5/8 Engine, Kohler, Model No. MV18.08, Type No. PS58560
4 137978 5 136215	Muffler, Exhaust Tube Manifold LH Kohler MV18
6 136216	Tube Manifold RH Kohler MV18
7 2751R 8 122439X	Clip Line Fuel
9 17190408	Bracket Muffler Mounting Screw Hex WHS Thdcut 1/4-20 UNC
10 145552	Shield Heat
11 STD551131 12 74570512	Washer Lock Hvy. Hlcl. Spr. 5/16
13	Screw Hex SKT 5/16 UNC x 3/4 Gasket (Order From Engine
	Manufacturer)
14 13280336 15 13200300	Nipple, Pipe Elbow, Standard 90°, 3/8-18 NPT
	Washer Lock Ext Tooth 3/8
17 17490624	Screw Thdrol 3/8-16 x 1-12 TT
23 128953 24 STD601005	Shield, Heat Screw
25 138672	Control Choke
26 STD551237	Nut Fin Hex 3/8-24 UNF
29 137180 31 141069	Arrester, Spark
32 123549X	Tank, Fuel Cap Assembly, Fuel
33 123487X	Clamp, Hose
34 106082X 35 17490512	Spacer, Pad
35 17490512 36 19132012	Screw Thdrol 5/16-18 x 3/4 TYT Washer 13/32 x 1-1/4 x 12 Ga.
37 8543R	Line, Fuel
38	Plug, Oil Drain
39 109227X	(Order From Engine Manufacturer) Spacer Pad
40 3645J	Bushing
41 139277	Stem, Fuel Tank
81 73510400	Nut Keps Hex 1/4-20 UNC

**NOTE:** All component dimensions given in U.S. inches 1 inch = 25.4 mm

# **TRACTOR - - MODEL NUMBER 917.252710**

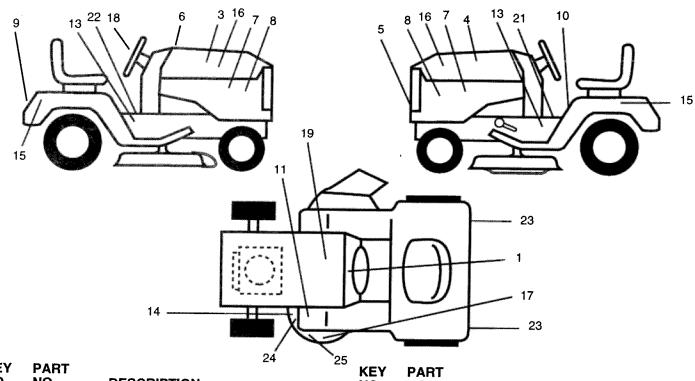
### **SEAT ASSEMBLY**



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 2 5 7 8 9 10 11 12 13 14 15	140123 140551 145006 124181X 17490508 19131614 140552 120068X 121246X 121248X 72050411 134300	Seat Bracket, Pivot, Seat Clip Push-In, Hinged Spring, Seat Screw Thdrol. 5/16-18 x 1/2 Washer 13/32 x 1 x 14 Gauge Pan, Seat Knob, Seat Bracket, Switch Mounting Bushing, Snap, Nylon Bolt, Carriage 1/4-20 x 1-3/8 Spacer, Split	16 18 17 21 22 24 25 27 28	121250X 124238X 123976X 139888 STD541431 19171912 127018X 17490608 STD541437 TE: All compon 1 inch = 25	Spring Cap, Spring, Seat Nut, Flangelock 1/4 Grade 5 Bolt, Shoulder 5/16-18 UNC Nut Washer 17/32 x 1-3/16 x 12 Gauge Bolt, Shoulder 5/16-18 x .62 Screw Thdrol. 3/8-16 x 1/2 Nut ent dimensions given in U.S. inches .4 mm

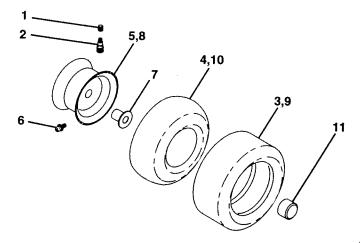
# **TRACTOR - - MODEL NUMBER 917.252710**

## **DECALS**



NO.	NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 3 4 5 6 7 8 9 10 11 13 14 15	138955 146705 146706 146708 133644 142243 138048 146709 137537 4900J 147138 146046 146712	Decal, Operating Instruction Decal, Hood, Craftsman, RH Decal, Hood, Craftsman, LH Decal, Grille Decal, Maintenance Decal, Side Panel Decal, Side Panel Decal, Fender, Craftsman Decal, Caution Decal, Clutch/Brake Decal, Chassis 42" Decal, V-Belt Schematic	18 1 19 1 21 1 22 1 23 1 24 1 25 1 1 1	46710 38047 40837 42336 06202X 36832 47142 38311 42341 37318 37319 45245	Decal, Insert Strg Decal, Battery Decal Brake Parking Saddle Decal, Sdl Cold Start Hydro Eng. Reflector, Taillight Decal V-Belt SHC Decal Deck 3 in 1 Decal, Handle Lift Height Adj. Decal, Drawbar Cntrl Mvt. Hyd Lt Decal, Refl HL YT/GT 1-pc Sears Decal, Refl HL YT/GT 1-pc Sears Pad Ftrest
16 17	147137 133179	Decal, Fender Hydro Decal Ins. Hood Decal, Mower QC System	1	45247 46823 46824	Fastener Pop-In Footrest Manual, Owner's (Eng) Manual, Owners (Span)

## **WHEELS & TIRES**

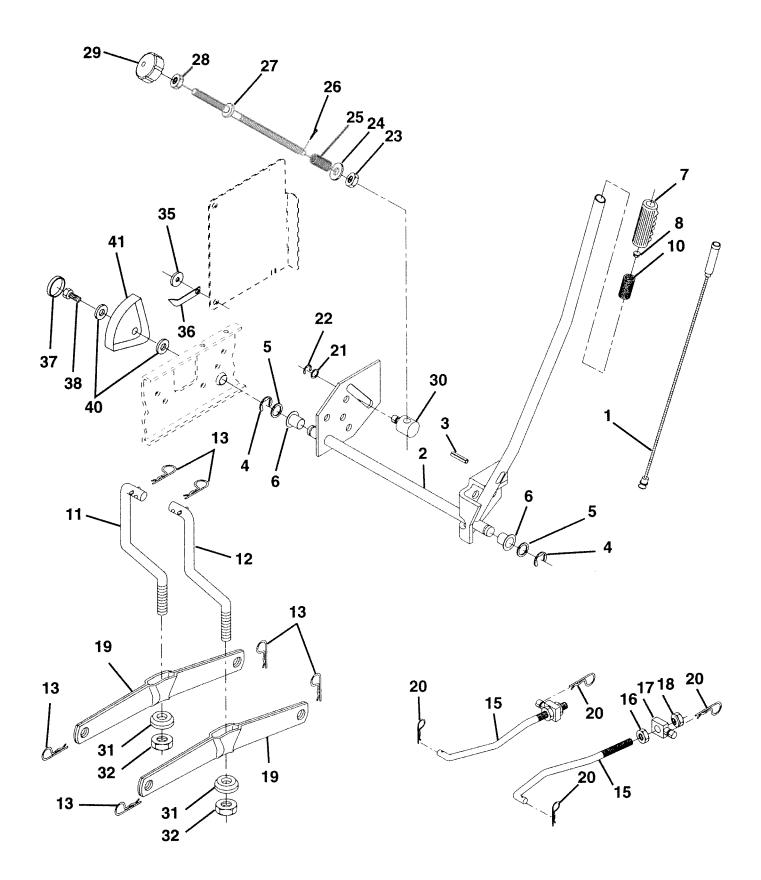


KEY NO.	PART NO.	DESCRIPTION
1	59192	Cap, Valve, Tire
2	65139	Stem, Valve
3	106222X	Tire, Front
4	59904	Tube, Front (Service Item Only)
5	106732X427	Rim Assembly, Front
6	278H	Fitting, Grease (Front Wheel Only)
7	9040H	Bearing, Flange (Front Wheel Only)
8	106108X427	Rim Assembly, Rear
9	122082X	Tire, Rear
10	7152J	Tube, Rear (Service Item Only)
11	104757X	Cap, Axle

**NOTE:** All component dimensions given in U.S. inches 1 inch = 25.4 mm

# **TRACTOR - - MODEL NUMBER 917.252710**

## **MOWER LIFT**



## **TRACTOR - - MODEL NUMBER 917.252710**

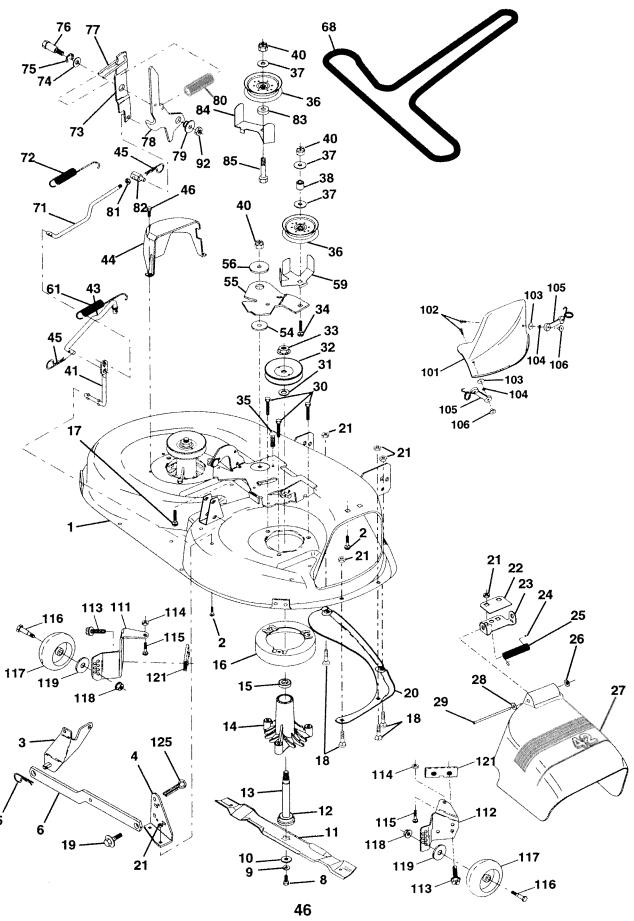
## **MOWER LIFT**

KE\ NO.		DESCRIPTION
13 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 35 36 37 38	127218 73350800 130171 73800800 139868 3146R 19151216 12000037 110807X 19131016 137150 76020308 137167 73350600 138057 110810X	Wire Asm., Inner w/plunger Shaft Asm Lift Pin Groove E Ring #5133-62 Washer 21/32 X 1 X 21 Ga Bearing Nylon Grip Handle Fluted Button, Plunger Spring Cprsn Link Lift Lh Fixed Length Link Lift Rh Fixed Length Retainer Spring Link Front Nut Jam Hex 1/2-13 Unc Trunnion Blk Zinc Nut Lock W/Wsh 1/2-13 Unc Arm Suspension Rear Spring Retainer Washer 15/32 X 3/4 X 16 Ga Ring Klip #T5304-37 Nut Special Washer 13/32 X 5/8 X 16 Ga Spring Pin Cotter 3/32 x 1/2 Rod Adjust Lift Nut Hex Jam 3/8-16 Unc Knob Infinite 3/8-16 Unc Knob Infinite 3/8-16 Unc Black Trunnion Dp Stop Dbl Thds Plt Bearing Pvt. Lift Spherical Nut Crownlock 3/8-24 Washer, Nylon .44 x .75 x .032 Pointer, Height Indicator Plug, Hole Scr-Hx Wash Thdrol 5/16-18 x 3/4 Tyt Washer 11/32 x 1-1/2 x 10 Gauge Scale, Height Indicator
		<del>-</del>

**NOTE:** All component dimensions given in U.S. inches 1 inch = 25.4 mm

# **TRACTOR - - MODEL NUMBER 917.252710**

## **MOWER DECK**

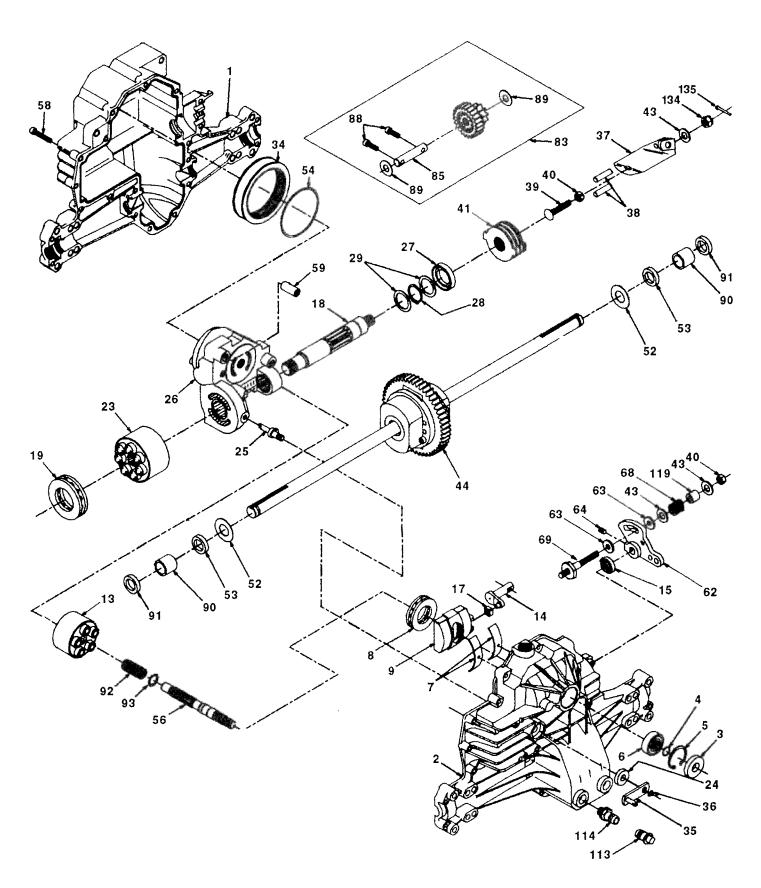


## **TRACTOR - - MODEL NUMBER 917.252710**

## **MOWER DECK**

KEY NO.		DESCRIPTION	KEY NO.		DESCRIPTION
1 2 3 4 5 6 8 9	144393 STD533107 138017 138440 STD624008 130832 850857 STD551137	Mower Deck Assembly, 42* Bolt Bracket Asm Fr. Sway Bar Bracket Asm Deck 42* Sway Bar Retainer Spring Arm, Suspension, Rear Bolt 3/8-24 x 1.25 Grade 8 Washer, Lock	38 40 44 46 54 55 56 59	72110618 STD541437 140088 137729 133943 140084 122052X 141043	Bolt RDHD SWNK 3/8-16 x 2-1/4 Nut Guard, Mandrel, LH Screw Thd. Roll 1/4-20 x 5/8 Washer, Hardened Arm, Idler Spacer, Retainer Guard Tuv Idler
10 11 12 13	140296 134149 129895 137645	Washer, Hardened Blade, Mulching, 42" Mower Deck Bearing, Ball Shaft Assembly, Mandrel, Vented (Includes Key Number 12)	61 68 83 84 85	131950 144200 120958X 144394 72140620	Spring Ext. Electric CL V-Belt, 42" Mower Washer Sintered Keeper, Belt Idler Fixed Bolt, Carriage 3/8-16 x 2-1/2 Gr. 5
14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	128774 110485X 140329 132823 72140505 132827 136888 STD541431 134753 131267 105304X 123713X 110452X 130968 19111016 131491 138776	Housing, Mandrel, Vented Bearing, Ball, Mandrel Stripper, Vented Mower Deck Spacer Spring Step Idler Bolt, Carriage 5/16-18 x 5/8 Bolt, Shoulder Baffle, Vortex Nut Stiffener Bracket Bracket, Deflector Cap, Sleeve Spring, Torsion, Deflector Nut, Push Shield, Deflector Washer 11/32 x 5/8 x 16 Gauge Rod, Hinge Screw Thdrol. Hex Head Zinc	102 103 104 105 106 111 112 113 114 115 116 117 118 119 121	136420 71161010 19061216 STD551110 130758 2029J 140353 132262 17490512 73510500 72110504 137644 133957 73930600 19121414 143723 76020816	Mulcher Cover Screw Washer #10 Washer, Lock Latch Assembly, Bagger Nut, Weld Bracket, Gauge, Wheel LH Bracket, Gauge, Wheel RH Screw Thdrol 5/16-18 x 3/4 Ty.T Nut, Keps 5/16 - 18 UNC Bolt, Carriage 5/16 UNC x 1/2 Bolt, Shoulder Wheel, Gauge, Donut Nut, Locking 3/8 - 16 Washer 3/8 x 7/8 x 14 Ga. Bracket Extruded Gauge Wheel Pin Cotter 1/4 x 1 Plated
31 32 33 34 35 36 37	129963 129861 137266 72110622 133835 131494 STD551037	Mower Washer, Spacer Pulley, Mandrel Nut, Toplock Flanged Bolt Fastner, Christmas Tree Pulley, Idler, Flat Washer 13/32 x 13/16 x 16 Gauge		130794 145452 E: All compone 1 inch = 25.	Mandrel Assembly (Includes Key Numbers 8-10, 12-15, 31 and 33)) Mower Deck, Complete (Std Deck - order mulching and gauge wheel components separately - key nos. 101 thru 106 and 111 thru 121) ent dimensions given in U.S. inches 4 mm

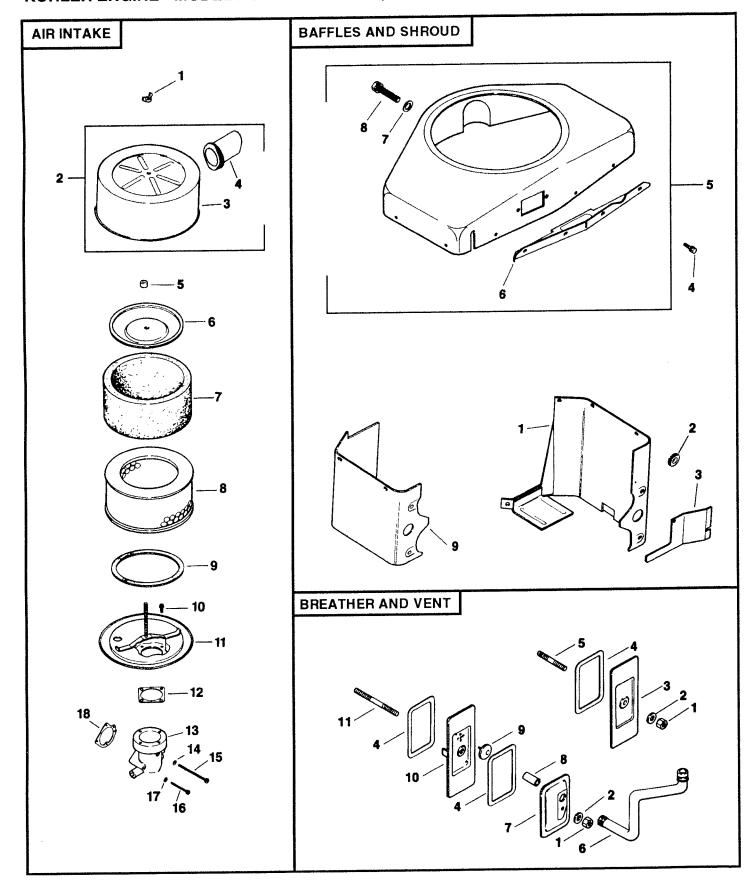
# TRACTOR - - MODEL NUMBER 917.252710 HYDRO GEAR TRANSAXLE - MODEL NUMBER 310-0750



## TRACTOR - - MODEL NUMBER 917.252710 HYDRO GEAR TRANSAXLE - MODEL NUMBER 310-0750

	PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
1	142930	Housing, Lower	43	142884	Washer 7/16 x 7/8 x .060
2	142931	Assembly, Upper Housing	44	142959	Differential Assembly
3	142932	Seal, Lip	52	142960	Washer 3/4 x 1.5 x .03
4	142928	Ring, Wire Retaining	53	142961	Seal .75 x 1.25 x .250
5	142933	Ring, Retaining	54	142962	O-Ring .103 x 2.987 ID
6	142934	Bearing, Shaft Ball	56	142963	Shaft, Input
7	142935	Bearing, Cradle	58	142964	Bolt 1/4-20 x 1.38
8	142936	Bearing, Thrust 30 x 52 x 13	59	142965	Pin .5 OD x .43 ID x .750
9	142937	Swashplate, Variable	62	142966	Arm, Control
13	142938	Block, Cylinder Assembly	63	142967	Puck, Dampener
14	142939	Arm, Trunnion	64	142920	Set Screw
15	142940	Seal, Lip	68	142969	Spring
17	142941	Guide, Slot	69	144610	Stud 5/16-24
18	142942	Shaft, Motor	83	142971	Jack Shaft Assembly
19	142943	Bearing, Thrust 42 x 68 x 16	85	142972	Jack Shaft
23	142944	Block, Cylinder Assembly	88	142973	Capscrew
24	142945	Seal, Lip 10 x 25 x 7	89	142974	Washer
	142946	Actuator, Bypass	90	142975	Sleeve Bearing
26	142947	Center Section Assembly Kit	91	142976	Seal, Wiper
27	142948	Seal, Lip 26 x 42 x 8		142977	Spring, Block
28	142949	Ring, Retaining		142978	Washer, Block Thrust
29	142950	Washer 26 x 35 x 1	113	142917	Cap, Vent Assembly
34	142951	Oil Filter Element	114	142918	Fitting, O-Ring Assembly
35	142952	Arm, Bypass	119	142980	Spacer
	142953	Ring, Retaining		144607	Nut, Castle 5/16-24
	142954	Arm, Actuating	135	144608	Pin, Cotter
	142955	Pin, Actuating			
	142956	Bolt 5/16-24 x 1-3/4			
	142957	Locknut, Hex 5/16-24 UNJC	NOTE	E: All compone	ent dimensions given in U.S. inches
41	142958	Brake Rotor/Stator Kit		1 inch = 25.4	4 mm

# TRACTOR - - MODEL NUMBER 917.252710 KOHLER ENGINE - MODEL NUMBER MV18.OS, TYPE NUMBER PS58560



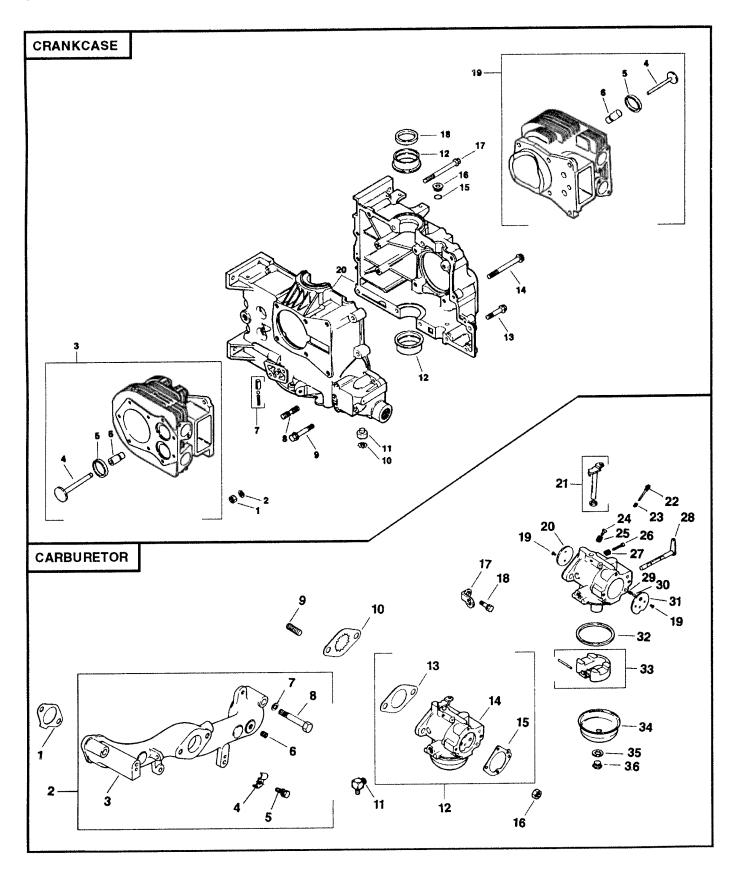
## **TRACTOR - - MODEL NUMBER 917.252710**

#### **KOHLER ENGINE - MODEL NUMBER MV18.OS, TYPE NUMBER PS58560**

AIR I	NTAKE		7 8	52 468 16 52 086 11	Washer, Flat (2)
KEY NO.	PART NO.	DESCRIPTION	9	52 124 23	Screw 1/4-20 x 5/8 (6) Baffle, #1 Cylinder Head
			NOT	ILLUSTRATED	
1 2	X-276-7 52 755 83	Wing Nut 1/4-20 Kit, Cover and Tube (Includes Key Numbers 3 and 4)		52 113 46	Decal, Horsepower (3)
3 4	52 096 35 52 123 21	Cover, Air Cleaner Tube, Air Intake	BRE	ATHER & VENT	
5	231032	Seal, Element Cover		PART	DESCRIPTION
6	52 082 04	Cover, Air Cleaner Element	NO.	NO.	
7	45 083 01	Pre-Cleaner			
8	45 083 02	Element	1	X-81-1	Nut, Hex 1/4-20 (2)
9	237423	Seal, Air Cleaner Cover	2 3	X-25-12	Washer, Plain 1/4 (2)
10	X-67-98	Screw, Hex Washer Head	3	52 096 18	Cover, #2 Cylinder Valve
	50.004.00	#10-32 x 9/16 (4)	4	52 055 01	Gasket, Cover (3)
11	52 201 06	Base, Air Cleaner	5	X-352-39	Stud, #2 Cylinder Valve Cover
12	277093	Gasket, Air Cleaner (2)	_	<b>50.000.10</b>	1/4-20 x 2-1/4
13	52 054 39	Elbow, Air Intake	6	52 326 12	Hose, Breather
	X-25-79	Washer, Plain #10	7	52 096 08	Cover, #1 Upper Cylinder Valve
15	X-50-37	Screw, Slotted Pan Head	8	52 032 04	Seal, Breather
16	V 50 57	#10-32 x 2-1/4	9	52 462 01	Valve, Umbrella
16	X-50-57	Screw, Slotted Pan Head	10		Cover, #1 Lower Cylinder Valve
17	X-22-9	#10-32 x 1-3/4 (2)	11	275220	Stud, #1 Cylinder Valve Cover
17	X-22-9	Washer, Lock, Internal Tooth			1/4-20 x 3-1/4
18	25 041 06	#10 (2) Gasket, Air Cleaner Elbow	NOTE	E: All component 1 inch = 25.4 n	dimensions given in U.S. inches
NOT !	ILLUSTRATED			– 2	1011
	25 113 15	Decal, Air Cleaner			
	52 113 30	Decal			
BAFFLES & SHROUD					

	PART NO.	DESCRIPTION
1	52 063 41	Baffle, #2 Cylinder Head
2 3	52 313 05	Grommet (2)
3	52 063 42	Baffle, Fuèl Pump
4	X-67-83	Screw, Hex Washer Head
		1/4-20 x 7/16 (14)
5	52 755 70	Kit, Blower Housing
		(Includes Key Numbers 6 thru 8)
6	52 217 01	Support, Upper Housing

# TRACTOR - - MODEL NUMBER 917.252710 KOHLER ENGINE - MODEL NUMBER MV18.OS, TYPE NUMBER PS58560

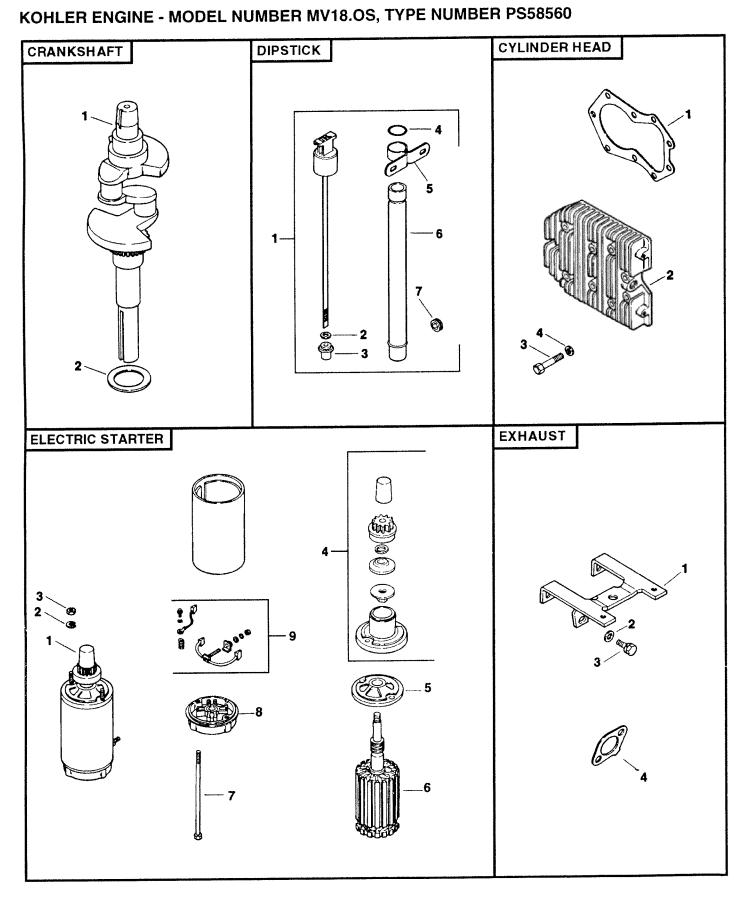


#### **TRACTOR - - MODEL NUMBER 917.252710**

#### **KOHLER ENGINE - MODEL NUMBER MV18.OS, TYPE NUMBER PS58560**

CRANKCASE 15 25					Gasket, Air Cleaner
	PART NO.	DESCRIPTION	16 17 18	X-77-2 232867 X-67-62	Nut 5/16 (2) Strap, Lifting Screw, Hex Washer Head 1/4-20 x 3/4
1 2 3	X-82-2 52 468 12 82 755 16	Nut, Hex 5/16-18 (12) Washer, Flat 5/16 (12) Kit, #1 Cylinder Barrel (Includes Koy Numbers 4 thrus 6)	19 20 21	25 086 27 25 146 03 52 144 24	Screw, Throttle and Choke Plate (4) Plate, Choke Shaft, Throttle with Lever and Seal
4 5 6 7 8	52 016 05 52 031 01 52 316 06 52 755 50 52 072 12	(Includes Key Numbers 4 thru 6) Valve, Exhaust Insert, Valve Seat (2) Guide, Valve (2) Kit, Oil Relief Step Stud 5/16-18 x 3/4, 3/8.16 x 5/8.2**Long (12)	23 24 25 26 27	25 368 01 25 089 02 25 086 26 25 089 04 25 368 03 25 089 02	Needle, Idle Fuel Adjust Spring, Idle, Fuel Screw, Idle Speed Adjust Spring, Idle Speed Needle, Main Fuel Spring, Main Fuel
9 10 11 12	25 086 12 X-269-43 52 078 05 52 030 10 52 030 11 52 030 12	3/8-16 x 5/8, 2" Long (12) Screw, Hex Flange 5/16-18 x 2 (2) Ring, Retaining Shaft, Governor Bearing, Sleeve, Standard (2) Bearing, Sleeve .010" (2) Bearing, Sleeve .020" (2)	28 29 30 31 32 33 34	52 090 13 25 089 03 25 194 01 25 146 02 25 041 04 25 757 09 25 104 01	Lever, Choke Spring, Choke, Friction Ball, Choke, Friction Plate, Throttle Gasket, Bowl Kit, Float Bowl, Fuel
13	25 086 10	Screw, Hex Flange 5/16-18 x 1-1/2 (3)	35 36	25 041 03 25 100 05	Gasket, Bowl Retainer Screw Screw, Bowl Retainer
14 15 16 17 18 19	25 086 13 52 141 02 52 139 08 25 086 11 52 032 10 82 755 17	Screw, Hex Flange 3/8-16 x 3-5/8 (2) O-Ring Plug Screw, Hex Flange 5/16-18 x 3-1/2 (8) Seal, Oil, Front Kit, #2 Cylinder Barrel (Includes Key Numbers 4 thru 6)		ILLUSTRATED 25 757 11 25 757 23 E: All component 1 inch = 25.4 r	Kit, Carburetor Repair Kit, Bowl Baffle t dimensions given in U.S. inches mm
20 CAD		Crankcase (Service with Short Block, Part Number 82 522 30)			
	BURETOR PART	DESCRIPTION			
NO.		DESCRIPTION			
1 2	52 041 09 52 755 91	Gasket, Intake (2) Kit, Manifold (Includes Key Numbers 3 thru 9)	RPM	Settings:	Low Speed 1500 - 2000 High Speed 3200 - 3400
3 4 5 6	52 164 15 X-21-1 X-6-29 X-75-23	(Includes Key Numbers 3 thru 8) Manifold, Intake Washer, Lock 5/16 (4) Screw, Hex Cap 5/16-18 x 2 (4) Plug, Hex, Countersunk			
7 8	235778 X-67-97	1/8 N.P.T.F. Clamp, Cable (2) Screw, Hex Washer Head			
11	41 072 19 52 063 40 25 155 02 52 853 25	#10-24 x 3/8 (2) Stud 5/16-18 x 1 (2) Baffle, Carburetor Connector, Hose Kit, Carburetor with Gasket (Includes			
13 14		Key Numbers 12 thru 14) Gasket, Carburetor (2) Carburetor Assembly (Information Only - Not Available Separately) (Includes Key Numbers 18 thru 35)			

# TRACTOR - - MODEL NUMBER 917.252710



#### **TRACTOR - - MODEL NUMBER 917.252710**

#### KOHLER ENGINE - MODEL NUMBER MV18.OS, TYPE NUMBER PS58560

3 52 086 11 4 52 041 14

NOTE: All component dimensions given in U.S. inches 1 inch = 25.4 mm

Screw 1/4-20 x 5/8 (3) Gasket, Exhaust (2)

KEY NO.	PART NO.	DESCRIPTION
1	52 014 93	Crankshaft
2	52 468 03	Washer, Thrust .119/.122 (A.R.)
	52 468 04	Washer, Thrust .128/.131 ` '
	52 468 05	Washer, Thrust .137/.140 (A.R.)

#### DIPSTICK

KEY NO.	PART NO.	DESCRIPTION
1	52 038 14	Dipstick Assembly (Includes Key Numbers 2 and 3)
2	X-25-44	Washer, Plain 5/16
3	52 032 14	Seal, Rubber
	41 153 01	O-Ring
5	52 126 11	Bracket, Oil Tube Support
6	52 123 20	Tube, Oil Fill 11-7/8
7	47 139 01	Plug, Hex, Countersunk 3/4 N.P.T.F.

#### CYLINDER HEAD

NO.	NO.	DESCRIPTION
1 2 3 4	52 041 20 52 015 08 220534 41 086 02	Gasket, Head (2) Cylinder Head (2) Washer, Plain 5/16 (18) Screw, Hex Head 5/16-18 x 1-1/2 (18)

#### **ELECTRIC STARTER**

	PART NO.	DESCRIPTION			
1	52 098 12	Starter Assembly (Includes Key Numbers 4 thru 9)			
2	X-20-1	Washer, Lock 1/4 (2)			
3	X-20-1 X-81-1 82 755 26 52 081 07	Nut, Hex 1/4-20 (2)			
4	82 755 26	Kit, Drive			
5	52 081 07	Cap, Drive End			
6	52 170 05 52 211 01	Armature			
7	52 211 01	Bolt, Thru (2)			
	52 227 10	Cap, Commutator End			
9	82 755 28	Kit, Brush			
NOT	NOT ILLUSTRATED				
	25 450 03	Tag, Caution			

#### **EXHAUST**

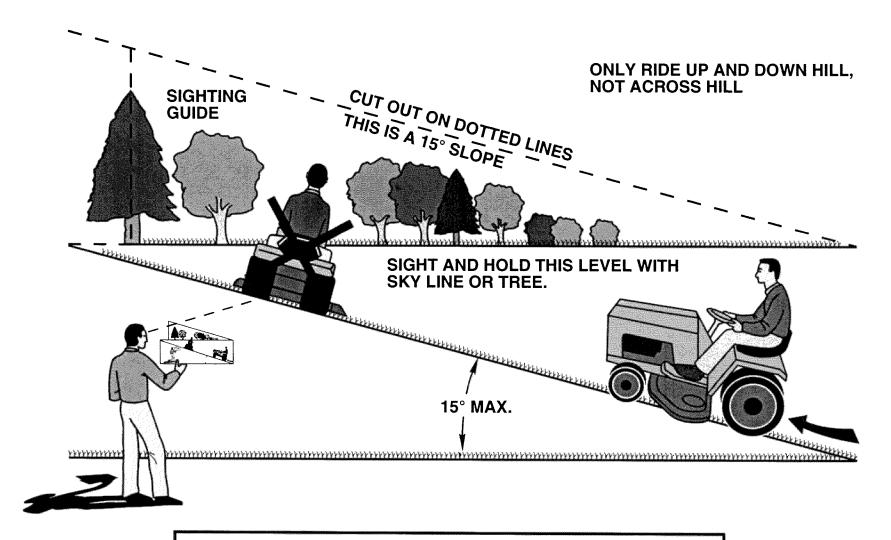
KEY NO.	PART NO.	DESCRIPTION
-	52 126 12 X-25-72	Bracket Washer, Plain (3)

# **SERVICE NOTES**

# **SERVICE NOTES**

# **SERVICE NOTES**

## SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION





Operate your Tractor up and down the face of slopes (not greater than 15°), never across the face. Make turns gradually to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.

# SEAIRS

# OWNER'S MANUAL

MODEL NO. 917.252710

#### IF YOU NEED REPAIR SERVICE OR PARTS:

FOR REPAIR SERVICE, CALL THIS TOLL FREE NUMBER:

1-800-4-REPAIR (1-800-473-7247)

FOR REPLACEMENT PARTS INFORMATION AND ORDERING, CALL THIS TOLL FREE NUMBER:

1-800-FON-PART (1-800-366-7278)

# CRAFTSMAN®

# 18 HP TWIN CYLINDER ELECTRIC START 3 in One Convertible 42" MOWER AUTOMATIC (HYDROSTATIC) DRIVE LAWN TRACTOR

Each tractor has its own model number. Each engine has its own model number.

The model number for your tractor will be found on the model plate located under the seat.

The model number for your engine will be found on the blower housing of the engine.

All parts listed herein may be ordered from any Sears, Roebuck and Co. Service Center/Department and most Retail Stores.

# WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:

- PRODUCT TRACTOR
- MODEL NUMBER 917.252710
- ENGINE MODEL NO. MV18S-58560
- PART NUMBER
- PART DESCRIPTION

Your Sears merchandise has added value when you consider Sears has service units nationwide staffed with Sears trained technicians... professional technicians specifically trained to insure that we meet our pledge to you, we service what we sell.

146823 11.03.94

Printed in U.S.A.